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**Corporate Governance and Corporate Performance:
Evidence from Jordanian Family and Non-Family Firms**

A thesis submitted in partial fulfilment of the requirements for the
Degree of Doctor of Philosophy

By

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Dedication

This work is dedicated to my mother and father, who have been the greatest teachers in my life and are always in my heart. This work is also dedicated to my brothers and my friends for all their encouragement they have offered me during this endeavor.

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Abstract

Corporate governance and corporate performance are two concepts that have been extensively examined in finance and management literature. However, most studies have been conducted in developed countries, particularly the UK and the US, while there is relatively little work carried out on the Middle East, specifically Jordan. Many Jordanian companies are characterised by concentrated ownership (generally family firms), which forms a considerable part of its economy (ROSC Jordan, 2004). Few researchers have examined family firms' performance from a corporate governance perspective.

This study investigates the influence of corporate governance on the performance of Jordanian family and non-family firms from 2009 to 2015, employing agency theory and resource-dependency theory to investigate the relationship between corporate governance and performance of family and non-family firms. Agency theory is concerned with problem of agency between principals and agents as well as principals and principals, which undermines value maximisation. Due to complexity within the corporate governance and performance phenomena, agency theory is supplemented with predictions from resource dependence theory, since this theory asserts that the resources provided by the shareholders and the directors are likely to improve performance. It has been suggested that the board of directors and ownership structure are effective corporate governance mechanisms to improve firm performance.

Multivariate pooled-OLS regression analyses were the main tool of analysis. Secondary data obtained from published firm annual reports, firm financial reports and the Thomson One database was analysed to test the effect that board of directors and ownership structure have on corporate performance and the performance of family firms. To ensure confidence in these estimates, this thesis uses two-stage least squares (2SLS) to address the issues of endogeneity. The focus of the investigation was firms listed on the Amman Stock Exchange (ASE). The dataset is a panel of all firms on the ASE from 2009 to 2015, excluding financial firms with a sample of 103 firms, including 56 family-firms (about 55%) and 47 non-family firms.

Major findings include (i) board mechanisms; board size, independent directors and family CEO negatively influence family firm performance while CEO duality tends to have a positive

effect on performance, (ii) female board member, ownership concentration and local institutional investors have no effect on corporate performance, (iii) in non-family firms, there are positive relationships between governance mechanisms (independent directors and local institutional investors) and corporate performance. However, board size and concentrated ownership have no effect on performance, (iv) female board member has a negative effect, and (v) the proportion of foreign shareholders has a positive effect on the performance of family and non-family firms. Overall, there is a difference between the impact of corporate governance mechanisms on family and non-family firms' performance.

In terms of practical implications, this study illustrates (i) The importance of corporate governance in the broader sense, especially in emerging economies such as Jordan, where ownership is concentrated in Jordanian companies; (ii) signs policymakers and regulatory bodies can use to monitor companies that are more likely to confiscate investors and/or introduce governance problems; (iii) a potentially productive method for professional investors to select companies with superior governance structures and performance to improve returns on their investments, particularly in the long term.

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CHAPTER ONE: INTRODUCTION

1.0 Context and Background

Over the past three decades, corporate governance has become an important research area, associated, as it is, with the financial crises and collapses in different parts of the world (Johnson et al. 2000; Nam & Nam, 2004). Specialists assert that these crises emerged from weakness in legislation, and thus had a tremendous impact upon the enactment of laws governing companies (Tourani-Red & Ingley, 2010). This was a contributing factor to the 1997 Asian financial crisis (Lemmon & Lins, 2003) and it is also argued that the 2008 financial crisis in the United Arab Emirates, known as the Dubai crisis, was chiefly attributable to the absence of efficient and effective corporate governance practices. As a result of the recent global financial crisis, many international organisations, e.g. the Organisation for Economic Co-operation and Development (OECD), have issued corporate governance codes and encouraged all countries to implement international corporate governance principles (OECD, 2004). These codes are composed of different elements such as regulations, legislations and business practices, which set a clear framework for effective corporate governance (Okpara, 2011).

The idea of corporate governance has emerged to align the interests of shareholders and managers in companies with a dispersed ownership. These companies are commonly found in developed countries such as, the UK and the US (Gugler et al., 2008). Cadbury (1992) stated that corporate governance focuses upon different arrangements used to control and direct companies to achieve the active participation of shareholders and managers in corporate decision aimed at maximising stakeholder wealth. In other words, corporate governance sets out the responsibilities and obligations among the various participants in the company to ensure suitable rules for corporate decision-making and clear procedures. Some researchers (e.g. Lin and Hwang, 2010; Ghabayen, 2012) have highlighted that effective corporate governance limits the confiscation of firm resources by the management team, ensuring better decision-making and effective management, resulting in better resource allocation and improved performance. Corporate governance is, therefore, an internal mechanism for monitoring management and helping a firm to achieve better performance (Ghabayen, 2012).

It has been argued that corporate governance practices vary greatly from one country to another due to several factors, including legal, institutional, environmental and corporate-specific

factors. The OECD (2004) reported that corporate governance principles are not completely transferable between countries due to the vast differences in the contextual settings of developing countries and those of developed countries. Accordingly, the OECD recommended that the content of these principles should be modified based on the distinctive situation of each country to reach effective corporate governance. Furthermore, corporate ownership has a significant influence on the effectiveness of corporate governance practices in any country (Schleifer & Vishni, 1997). There is a causal relationship between differences in corporate ownership structures and the different ways corporate governance operates from country to country (Pindado & Torre, 2004; Sing & Sirmans, 2008). In addition, variations in corporate performance could also be caused by differences in business nature and ownership structure (Hussainey & Al-Nodel, 2008). In terms of the importance of corporate governance Gillian (2006) states that the practice of good corporate governance is an essential tool for controlling agency problems arising from dispersed ownership as well as concentrated ownership through protecting the investor's rights and interests.

Previous literature on corporate ownership structures shows that family businesses represent a large proportion of the corporate sector in most countries of the world. For instance, in a study conducted by Anderson and Reeb (2003) family firms represent a large percentage of all U.S. firms, with approximately 18% of the Standard and Poor (S&P) 500 index companies, respectively (Anderson and Reeb, 2003). La Porta et al. (1999), in a study of 27 countries, showed that families' controlled 53 per cent of publicly listed firms with a total market capitalisation of \$500 million. Further, 44% of publicly listed firms in Europe are family controlled (Faccio and Lang, 2002). While in the Asian context, Claessens et al. (2000) report that over two thirds of companies in East Asia are family firms, owned by a single shareholder.

Indeed, family companies represent the dominant form of business entities in the world (Faccio and Lang, 2002). About 85% of companies were started from family funds (PWC, 2012). As documented by the European Family Businesses (2012), family companies represent between 70% and 90% of all business sectors around the world and encompass 50% to 80% of jobs in most countries and so represent between 70% and 90% of global GDP annually. In Middle East countries, Ernst & Young's report "*Middle East Family Business Survey*" states that the family-owned business "*is one of the most common forms of business structures and the potential of*

family owned business to generate employment, wealth and welfare is enormous”. The report provides further information on the importance of family business in the region, generating approximately 80 percent of the region’s GDP, and accounting for about 70 percent of total employment, overall, 90% of the companies in the Middle East are family owned businesses (Ernst & Young, 2014). Moreover, a study conducted by Fadhel (2004) shows that about 98% of oil producing companies in the Gulf Cooperation Council, which includes Saudi Arabia, Kuwait, and most of the other Gulf States, are family run. AlNodel and Hussainey (2010) report that 35% of companies in Saudi Arabia are concentrated ownership, dominated by the state and family. Thus, these companies play an important role in the economy of Middle East countries.

However, this type of firm is not exempt from agency problem, where the basic conflict is between family shareholders and non-family shareholders (Bebchuk, Lucian A., Kraakman and George Triantis, 1999). Schulze et al. (2001) stated that family firms face greater agency problems than their counterpart non-family firms through immunisation management, altruistic behaviour and expropriation of minority shareholders' rights for their interests. Therefore, Mustakallio et al. (2002) emphasised that the family firms require a governance structure that improves their performance and helps to minimise harmful conflicts. From the governance perspective, the main feature that distinguishes family firm from others is family ownership and control in the business. Previous studies indicate that family firms have different corporate governance from their non-family counterparts (Setia-Atmaja et al., 2009; Navarro and Anson, 2009), and that some traditional mechanisms for controlling type I agency problems (i.e., board of directors) might be more or less effective in dealing with type II agency problems. For instance, the function of a board of directors is to monitor managers (see. e.g. Fama and Jensen, 1983), but a director in a family firm may not be able to monitor managers effectively because he/she is the same person or comes from the same family.

In Jordan, as in many Arab countries, most companies are concentrated in the hands of large shareholders, where the founder and/or family members usually possess a great many shares of the company and often have a significant impact on the management of the company's operations. Family members usually participate in the management of a firm by holding positions such as chairman of the board of directors and/or senior executive. In addition, it is argued that, because of family involvement, the appointment of directors and managers may

be affected by family ties and friendship, rather than relying solely on skills or qualifications (Hussainey & Al-Nodel, 2008; OECD, 2003¹). It is reasonable, therefore, to argue that, in Jordan, the agency problems of listed firms may be caused by the conflicts between majority shareholders and minority shareholders. Consequently, the major potential conflict of interest in emerging countries, such as Jordan, is likely to not be between managers and shareholders, but between shareholders.

Despite this conflict in the Middle East region, the Jordanian economy has witnessed great progress. For example; in the 2000s, the Jordanian government devoted considerable efforts to enhance the efficiency of financial markets and to help the country's economy integrate with the global economy; for example, capital markets were liberalised and corporate governance structures were reformed (ASE, 2007). Furthermore, the Securities Depository Centre (SDC), the Jordanian Securities Commission (JSC) and the Amman Stock Exchange (ASE) were established to make the regulatory environment more valid, enhance transparency, accountability and disclosure, and to improve the quality of corporate governance. These guidelines are primarily derived from the OECD Principles of Corporate Governance. As a first step, these regulations were voluntary guidelines for Jordanian listed companies until 2009 when compliance became based upon the "Comply-or-Explain" principle for all listed companies². Despite these reforms, relatively few studies have examined in detail the evolution of ownership structures and corporate governance in Jordan (Omet, 2005; Omar, 2007). Nonetheless, the regulations started debate about the need for good corporate governance in Jordan, to provide Jordanian listed firms with the best corporate governance practices that would protect the interests of both shareholders and stakeholders and improve the concentrated ownership of a public company performance which forms a considerable part of its economy (ROSC Jordan, 2004).

Responding to this situation, the current study will focus on the association between corporate governance mechanisms namely; board of directors (board size, CEO duality, independent

¹ Corporate Governance in the Morocco, Egypt, Lebanon and Jordan countries of the MENA region: MENA Regional Corporate Governance Working Group (2003).

² The "Comply-or-Explain" is based on the idea that all companies for which these principle applies should comply with the provisions of this Code; however, when they do not comply or cannot for some reason, they have to explain why. This model has proven to be very successful in implementation as it allows the smooth and gradual implementation of the code, creating the culture and awareness of the added value it brings to work without the heavy costs associated with immediate and rapid implementation.

directors, female board member and family-CEO) and ownership structure (concentrated ownership, local institutional ownership and foreign ownership) with corporate performance (represented by Tobin's Q and ROA) of family and non-family firms, in Jordan.

1.1 Research Objectives

As can be concluded from the above discussion, it is highly important to examine the impact of corporate governance mechanisms on the performance of family and non-family firms in Jordan. Thus, the main objectives of this thesis are:

- To investigate the impact of board of director characteristics (board size, CEO duality and female board members, independent directors) on the financial performance of family and non-family-firms in Jordan.
- To investigate the impact of ownership structure (concentrated ownership, local institutional ownership and foreign ownership) on the financial performance of family firms and non-family firms in Jordan.
- To investigate if the impact of board of director characteristics and ownership structure on family firms differ from their non-family counterparts in Jordan.

The study has three principal research questions:

1. What is the relationship between board of director characteristics and Jordanian family and non-family firms' performance?
2. What is the relationship between ownership structure and Jordanian family non-family firms' performance?
3. Does the effect of board of directors and ownership structure on family firms differ from their non-family counterparts in their performance?

1.1 Research Motivations

In recent years, an increasing number of researchers have drawn attention to the agency problem of the expropriation of minority investors by dominant shareholders. This appears to be a greater concern in countries where firms are characterised by a concentrated ownership in the hands of large shareholders (either individuals or families), and thus conflicts of interest not only occur between owners and managers but also between large/controlling shareholders

and small shareholders. La Porta et al. (1998) argue that the primary conflict in a firm owned by relatively few large shareholders is between the majority and minority shareholders because of the potential for the former to expropriate wealth from the latter. Shleifer and Vishny (1997) argue that there are potential costs to having major shareholders due to their incentives to extract their own benefits at the expense of other stakeholders. This is especially the case in emerging countries where ownership and control is mostly in the hands of individuals or families. However, Klapper and Love (2004) stated that it is essential for emerging markets to strengthen their corporate governance standards. Singh (2003) suggested that these markets should inspire companies to practice good corporate governance. In addition, according to Saidi (2005) and Najib (2007) the need to understand corporate governance has become more urgent in developing countries, particularly in the Arab region (Saidi, 2005; Najib, 2007).

There is now general agreement on the importance of implementing effective corporate governance in family firms. This research is a valuable contribution to the literature as it addresses this issue in the Middle East (Jordan). Family business scholars (see, e.g. Bird et al., 2002; Gupta et al., 2008), have documented that studies in the field have mainly been carried out in the US and Europe. Indeed, De Massis et al. (2012) illustrated that Asia, Australia, Latin America and Africa, account for only 27% of all studies, the vast majority being divided between Europe (28%) and the US (45%). Therefore, consideration of other geographical areas around the world is sorely needed and the issues of family businesses in developing countries merit particular attention as they encompass the vast majority of economic activity (Heck et al., 2008; Rosa and Caulkins, 2013).

Some of the differences between family firms in Jordan and those in Western countries are logical consequences of these developing markets and their regional culture and traditions such as, lack of foreign competition, ease of access to funds and resources, and ease of building business connections and knowledge. The other key difference is that the family retains control over the management of the firm. Most family firms in Jordan are run by the sons of founders, with some firms still being governed by founders. In fact, most of these companies have been operating for less than 40 years, which means that the major of family business in Jordan are managed by first and/or second-generation family members.

Due to the cultural features of the Jordanian business context the implementation of effective corporate governance in Jordan may be hampered in several ways; insufficient board members' independence, the granting of the authority to a single individual, and the concentration of ownership. Furthermore, like many emerging countries, Jordan still suffers from a weak system of protection for investors' rights and inefficiency (Al-Haddad et al., 2011). Also, the corporate governance framework in Jordan differs from the US and the UK business environment, especially in term of corporate board and ownership structures. For example, Jordanian companies typically consist of family or individual groups, government ownership, and foreign ownership, including other dispersed shareholders (Al-Muhtaseb, 2009; Al-Amarneh, 2014). The number of board members is also large compared to US and UK companies. In addition, the chairman of the board of directors is chosen by the shareholders of the company, whilst in the US and UK companies, the chairman is decided on by the directors. Given this scenario, and the increasing pressure on both scholars and policymakers to deal with these issues, the investigation of the relationship between corporate governance and corporate performance in family and non-family firms is both appropriate and necessary.

Academically, corporate governance practices have been reviewed internationally, mainly in the U.S., United Kingdom, but also within the Asian context (see, e.g. Brown & Caylor, 2007; Yen, 2005; Anderson & Reeb, 2003 in U.S.; Florackis, 2005; Erkens, Hung and Matos, 2012 in the UK; Saleh, Iskandar & Rahmat, 2007; Rusmin, 2010 in the Asian Countries). Also, corporate governance has been investigated in developing countries and emerging markets (see, e.g. Assenga, Aly & Hussainey, 2018 in Tanzania; Haniffa & Hudaib, 2006 in Malaysia; El Mehdi, 2007 in Tunisia; Zheka, 2006 in Ukraine; Olayiwola, 2010 in Nigeria; Hussain & Malian, 2002 in Bahrain; Aksu & Kosedag, 2006 in Turkey; Bremer & Elias, 2007 in Egypt; Solomon et al., 2003 in Taiwan; Georgiou, Koussis & Violaris, 2012 in Cyprus; Baydoun et al., 2013 in Kuwait, Bahrain, United Arab Emirates, Qatar and Oman). These studies emphasised that corporate performance is greatly affected by corporate governance practices and that the practice of corporate governance is weak in developing countries (Shleifer and Vishny, 1997). At the same time, however, the effect of corporate governance on firm performance remains comparatively under-researched in Arab countries and in particular, Jordan (Najib, 2007; Marashdeh, 2014).

Studies investigating whether the practice of corporate governance has the same impact on family firm performance are still less well known (Jaggi, Leung & Gul 2009; Prencipe & Bar-Yosef 2011). For Arab countries, most firms are family-owned and it is common for family members to have a great effect upon management, either through the membership of the board of directors or through controlling top management positions (OECD, 2003). According to Hussainey & Al-Nodel (2008) variations in corporate performance could be caused by differences in business nature and ownership structure. However, in Arab countries, including Jordan, there has been a lack of investigation into the performance of family firms from a governance perspective.

The absence of clarity and the mixed and consistent relationships between performance and governance show that this relationship is dynamic and complex: better governance arrangements may vary from one firm to another in terms of board and ownership structure. Therefore, it appears most appropriate for this study to examine the relationship between internal corporate governance mechanisms and the performance of family and non-family firms to further develop the research on the relationship between corporate governance and family firm performance.

1.2 Contribution of the Study

There are several significant features of this analysis that contribute to the literature on corporate governance, and family firms in several ways. First, this study will contribute to the understanding of the role of agency issues in a developing country context in line with Shleifer and Vishny's (1997) call for more international studies on corporate finance. Specifically, this study contributes to bridging the gap identified on corporate governance in the Arab region. Surveys and reports on corporate governance in the Arab world (Saidi, 2004; 2005; Omet, 2005; Najib, 2007) have pointed to deficiencies in the implementation of effective corporate governance, compared to developed countries. Second, investigation and examination of the characteristics of family and non-family firms may potentially produce interesting results as this study also considers whether the agency's classic theory of conflict between family shareholders and non-family shareholders exists in Jordanian firms. In addition, the description and analysis in this paper will help to highlight some of these concepts in relation to why the performance of family businesses may differ from their non-family counterparts. Third, there

is limited research on the agency issues dominant in different countries, so this study can contribute to increasing the knowledge within that area. Fourth, while this study focuses on Jordan, it will be valuable to other Arab markets in the Middle East, all of which share common culture, language and religion, and where there are strong similarities in the regulatory and institutional environments and corporate ownership structure.

A review of previous studies of corporate governance in Jordan reveals that the current study differs from other empirical studies in several aspects:

- The selected period of the study (2009-2015) has been chosen to fall after all the major recommendations in the governance reports and reforms were agreed. A seven-year period was selected to identify and analyse the influence of board of directors and ownership structure on corporate performance using both an accounting-based measure (ROA) and a market-based measure (Tobin's Q). Given the secretive nature and inadequate disclosure of Jordanian reporting, combined with the absence of any databases that provide financial data and corporate governance information, data used in the analysis is unique and valuable. More precisely, the sample size used in this study is significantly larger than that of previous studies conducted in the Jordanian context.
- This study dealt with two types of agency problems (types I and II), which were not discussed extensively in previous research. In doing so, we will expand previous studies which have focused on the traditional agency problem between shareholders and managers in countries where companies have dispersed ownership or between majority shareholders and minority shareholders in countries where ownership is concentrated. Moreover, unlike prior studies in Jordan that focus only on agency theory, this study adopts multiple theoretical frameworks comprised of agency, stewardship, stakeholder, resource dependency and institutional theories, to investigate corporate governance in the Jordan context.
- Relatively few studies have considered the different effects of corporate governance on performance in family firms compared to non-family firms. To the best knowledge of the researcher, this is the first study in Jordan that examines, in detail, the impact of

corporate governance on the performance of family firms. Therefore, conducting an analysis of both family and non-family firms and comparing results has great potential.

- Jordan does not publish reliable statistics on family businesses. To the best knowledge of the researcher, this is the first study in Jordan that classifies the Jordanian family listed companies. Most other studies have a problem because a family firm has not been defined accurately. However, it is straightforward to track family ownership in Jordan for several reasons, (i) two or more families do not have the same name; (ii) All family members have the same family name whether male or female; (iii) Jordanian law gives women the right to retain their family name after marriage. Thus, the names of the second-generation of family members can be clearly identified; (iv) in our sample, the average age of Jordanian firms is relatively low (i.e. 25 years). Therefore, it is not difficult to ascertain whether the family members are still in the firm or not.
- Most empirical evidence on the relationship between board structure and firm performance has emphasised board structure in terms of size, CEO duality and independent directors, However, recent literature emphasises the need for greater board diversity for better quality governance and firm performance (Carter, Simkins and Simpson, 2003), and in particular the participation by females. To the best knowledge of the researcher, this study is the first in Jordan to examine whether the presence of female members on the board impacts on the performance of family and non-family firms.
- All corporate governance mechanisms (board of directors: board size, CEO duality, independent directors, female board member and family-CEO. Ownership structure: concentrated ownership, local institutional ownership and foreign ownership. Corporate characteristic: firm size, firm age and leverage) have been analysed in one regression model. The effects of all these mechanisms have been examined on the performance of family and non-family firms using both ROA and Tobin's Q. In addition, we employ pooled-OLS and two stage least square (2SLS) regressions that help us to control for the problem of endogeneity.

1.3 Research Methodology

The quantitative method is the most common approach used in corporate governance studies (Cassell et al. 2005; Boyd et al. 2012; Albassam, 2014), and as appropriate to the nature of this work, the quantitative method OLS and 2SLS regressions were adopted for the implementation of the empirical investigation. Secondary data are collected to achieve the main objectives of this research. The results are analysed using regression methods for quantitative data.

The population of this study is composed of all non-financial firms listed on the Amman Stock Exchange over a seven-year period from 2009 to 2015. Non-listed companies, financial companies, and insurance companies are excluded from this research, due to the differences in the regulatory requirements between them and non-financial firms. Data collection began from 2009, as previous years suffer from the lack of annual reports of companies, while the sample ends in 2015 because this is the last year for which data is available, the data being collected between September 2016 and December 2016. Thus, the final sample consists of 103 firms and 721 firm year observations.

Jordan does not publish reliable statistics on family businesses. However, we can extrapolate from other Middle Eastern and Gulf region countries the importance of family businesses in the region. In this thesis, a family firm is defined as a company owned by a single individual or more with the same family name who collectively hold 10% or more of the company's shares. However, in a few cases, none of the large shareholders share a family name, so the study has cross-checked their names with the family names from the board of directors. Thus, the study confirms that at least two members of the same family have key positions of control in the company and it is therefore considered a family owned-controlled firm. Based on this definition, 56 family-firms (about 55%) and 47 non-family firms were selected to this study.

The data collected was classified into four main types: (i) corporate governance mechanisms; (ii) ownership structure variables; (iii) firm financial performance (accounting and market-based measures); and (iv) firm characteristics. The data was collected from various secondary sources. First, data related to the corporate governance mechanisms and corporate characteristics (firm age) was collected manually from the annual reports of each firm for the relevant years. Second, data related to the ownership structure (large shareholders and local

investors' ownership) was collected manually from the annual reports and the companies' websites, while foreign ownership was obtained from the Thomson One database and the Amman Stock Exchange annual company guide. Third, firm financial performance variables and data related to firm size and leverage variables were obtained from firms' financial statements, which were obtained from the Securities Depository Centre.

1.4 Thesis Outline

The thesis is structured into seven chapters including this introductory chapter. Chapter Two defines corporate governance from a narrow and a broad viewpoint and presents the key corporate governance theories, agency theory, including principal-agent problem and principal-principal problem, and stewardship, stakeholder, resource dependency and institutional theories. To select the appropriate theoretical frameworks for this study, each of these theories are analysed with respect to their applicability in the Jordanian business environment. Unlike prior studies that focus only on agency theory, the study adopts multiple theoretical frameworks comprised of agency, stewardship, stakeholder, resource dependency and institutional theories as the appropriate theoretical frameworks to investigate corporate governance in the Jordan context. A review of corporate governance models in developing and developed countries is explored. Chapter Three summarises the theoretical and the empirical literature in relation to family firms, board of directors, ownership structure, and corporate performance, including a discussion of the empirical findings from international studies. The chapter also sets out the hypotheses developed from the theoretical and empirical literature. Chapter Four provides an overview of the Jordanian background and economic environment. Chapter Five presents the research philosophy, methodology, data acquisition, variables and the rationale for selecting analysis method in this study. The chapter describes in detail the sampling and selection procedure. In addition, based on the literature, there is an explanation of the definition of family firms used in this study. This chapter also discusses the regression analysis used in the empirical results chapter. In addition, testing OLS assumptions, including outliers, multicollinearity, heteroscedasticity and endogeneity are diagnosed with statistical tools. Chapter Six is comprised of two parts. The first outlines the descriptive statistics of the main variables reported. The second part deals with the main inferences drawn from the analysis and compared them with previous empirical studies, highlighting any possible theoretical and empirical implications. The chapter also presents and discusses the results of

2SLS tests carried out to deal with potential endogeneity issues. Chapter Seven concludes the thesis, focusing on the key findings, implications, research limitations and potential areas for future research.

CHAPTER TWO: Theoretical Framework of Corporate Governance

2.0 Introduction

Recently, focus on corporate governance has increased, both in practice and in scientific research (Bebchuk, Cohen & Ferrell, 2009). The breakdown of various companies such as WorldCom, Tyco and Arthur Andersen sparked great interest in corporate governance all over the world (Solomon & Solomon, 2004). In the U.S., corporate scandals (e.g. Enron and MCI Inc.) led to the Sarbanes-Oxley Act in 2002, to restore investors' confidence in corporate governance. In the UK, corporate failures in the early 1990s (e.g. Maxwell Group, Barings Brothers and BCCI), brought the UK government to make significant changes in British corporate governance (Pickett, 2007). Concern rose in Asian countries following the 1997 financial markets crisis and some corporate bankruptcies (Tarraf, 2010). These cases emphasised that corporate governance has become absolutely necessary to promote corporate performance, maintain the rights of investors, strengthen investment environments and promote economic growth (Arnold and De Lange, 2004; Price et al., 2011). Different theories have been developed in the field of corporate governance. These theories provide a theoretical framework for explaining corporate governance issues from different perspectives. The main difference between these theories can be attributed to their different perspectives regarding the company's goals (Al-Wasmi, 2011). For instance, agency theory claims that the company's goal is to maximize shareholders' wealth, whereas stakeholder theory is based on the suggestion that the company should consider all stakeholders rather than its shareholders only.

The main purpose of this chapter is to present a definition of corporate governance and to discuss the key corporate governance theories and their implications within Jordanian corporate context. The chapter is organised in the following way: Section 2.1 describes what is corporate governance?; Section 2.2 presents the general meaning of the main corporate governance theories. Section 2.2.1 discussing agency theory, which is the main theory used in this thesis and briefly discusses the type I agency problem (shareholders–manager) and type II agency problem (majority shareholders–minority shareholders); Section 2.2.2 discusses stewardship theory. Stakeholder theory, resource dependency theory and institutional theory are also analysed and an attempt is made to determine their appropriateness to the Jordanian context in Sections 2.2.3, 2.2.4 and 2.2.5, respectively. Section 2.3 presents the theoretical framework

adopted in this study. Section 2.4, discusses corporate governance models in both developed and developing countries. Finally, Section 2.5 summarises the main points in this chapter.

2.1 What is Corporate Governance?

It is important to note that the increase in corporate fraud and fraudulent financial reporting in both developed and developing countries has brought attention to the concept of corporate governance, and it has become more popular in various sectors such as with regulators, professional bodies, and academics (Bebchuk, Cohen & Ferrell, 2009). As a result, there is no universal or a unique definition of corporate governance – depending on the perspectives of practitioners, theorists and policymakers (Solomon, 2010) and the different of cultural situations (Armstrong, 2005).

According to Solomon (2010) prevailing corporate governance definitions “fall along a spectrum, with 'narrow' views at one and more inclusive, 'broad' views placed at other" (p.5). For example, Shleifer and Vishny (1997), define corporate governance as “*the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment*”, while Letza et al. (2004) defines corporate governance as “*the institutional arrangements for relationships among various economic actors ... who may have direct or indirect interests in a corporation*”. The two definitions have similarities and differences. The first definition is focused on the shareholders ‘motivation to maximise their value while the second takes the wider point of view of a company in relation to all stakeholder groups (e.g. customers, employees, government and other stakeholders).

From a narrow perspectives, corporate governance can be referring to the relationship among different participants such as, CEO, management, board of directors and shareholder insider to attain shareholder interests (Monks and Minow, 1995). Cadbury (1992) points out that corporate governance focuses upon different arrangements used to control and direct companies in order to create the active participation of both shareholders and managers in corporate decisions aimed at maximising shareholder wealth. This perspective is compatible with the definition from the Walker Review (2009, p.23), which emphasises that the purpose of corporate governance is “*to protect and advance the interests of shareholders through setting the strategic direction of a company and appointing and monitoring capable management to achieve this*”.

Apart from the narrow definitions of corporate governance, there is a set of broader definitions that provides corporate governance as a system of checks and balances, both internal and external, which ensure that companies discharge their accountability to shareholders and act in a socially responsible way in all areas of their business activities (Solomon and Solomon, 2004).

In 2000, Adrian Cadbury offered a broader definition:

“Corporate governance is concerned with holding the balance between economic and social goals, and between individual and communal goals. The governance framework is there to encourage efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interest of individuals, corporations and society. The incentive to corporations is to achieve their corporate aims and to attract investment. The incentive for the state is to strengthen their economies and discourage fraud and mismanagement” (Cadbury 2000).

On the basis of the above, the point of corporate governance relates to safeguarding the interests of different participants and to achieve long-term sustainability for the company. It could be concluded that these definitions of corporate governance do not exclude each other, rather they supplement each other. In this sense, the above definitions are brought together within the OECD definition of corporate governance (OECD, 1999):

"Corporate governance is the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as, the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. By doing this, it also provides the structure through which the company objectives are set, and the means of attaining those objectives and monitoring performance.” (p.11)

In 2004, the definition of corporate governance was revised by the OCED to take into consideration developments since 1999. However, both versions (1999, 2004) emphasise that

corporate governance is a system to check and balance management performance and reduce any potential conflicts of interest between the company's principals and management. Rezaee (2009) stated that good corporate governance is a key factor for a company to create long-term value and, furthermore, it helps to concentrate on improving efficiency with respect to the monitoring and management of a company to enhance shareholder confidence. From this perspective, with a view to the objective of the study, corporate governance may be defined as the group of mechanisms that are designed and managed to reduce the conflicts of interest between shareholders and managers or between majority shareholders and minority shareholders.

2.2 Corporate Governance Theories

A theory is “a coherent set of hypothetical, conceptual and pragmatic principles forming the general framework of reference for a field of inquiry” (Hendriksen, 1970, p. 1). In order to understand the corporate governance issues, a theoretical framework is needed. Ziolkowski (2005, pp. 357-358) argues that:

“Corporate governance research should be no different from scholarly enquiries in natural sciences in terms of methodological approach. Such research requires that corporate governance scholars place the subjective process of developing ideas into a logical framework of challenge and questioning through debate and data collection. This is a continuous process starting with conceptual and propositional analysis for defining terms, model building and theory development.”

Researchers developed several theories to explain how corporate governance mechanisms work in the real world. Although there are a large number of corporate governance theories, no single theory fully integrates all the aspects that affect corporate governance practices (Clarke, 2004). In other words, these individual theories suffer from several weaknesses (Chen and Roberts, 2010), but together they can complement each other and improve their ability to predict. In addition, it is argued that the corporate governance is complex issue, and related to various fields, including economics, management, finance, policies and ethics (Solomon, 2010). Therefore, it is difficult to rely on one theory, such as agency theory alone, in interpreting and explaining corporate governance practice (Sharma, 2013). Consequently,

multiple theoretical frameworks are required to provide a comprehensive understanding of corporate governance practices.

Given the impact of social, economic and political factors on the practice of corporate governance, it is necessary to consider such factors when choosing appropriate theories that can provide a useful framework for interpreting corporate governance in a particular country (Al Wasmi, 2011). Some theories that provide a suitable framework for explaining corporate governance issues might be more closely related to particular business environments than others (Malin, 2007). This can be attributed to the difference between countries in terms of their cultural values, economic and political circumstances.

A number of theories have been developed to analyse different elements of corporate governance. The dominant theories that are commonly used in corporate governance studies are agency theory, stewardship theory, stakeholder theory, resource dependency theory and institutional theory (Blair, 1995; Davis et al., 1997; Donaldson & Preston, 1995; Eisenhardt, 1989; Fama & Jensen, 1983; Freeman, 1999; Jensen & Meckling, 1976;; Watts & Zimmerman, 1986). While agency theory and stewardship theory focus more on the managers' behaviours and motivations, both stakeholder theory and institutional theory view that corporate governance pertains to social relationships rather than corporate structures (Al Mamun, Yasser, & Rahman, 2013). From another perspective, resource dependency theory focuses on the organizational structures that help firms access the necessary resources for their survival (Pfeffer & Salancik, 1978).

In the following subsections, agency, stewardship, stakeholder, resource dependency theory and institutional theories are briefly reviewed. These theories are selected because they are powerful in explaining the relationships among corporate governance and firm performance.

2.2.1 Agency Theory

2.2.1.1 Principal–Agent Conflicts (Type I Agency Problem)

Modern corporations, especially publicly held companies, have been characterised by the dispersion of shareholdings, where the company has various shareholders with decision-making authority delegated to managers to enable them to run the company. Berle and Means

(1932) were the first to discuss the extent to which increasing the dispersion of share ownership leads to the divorce of ownership from control in the United States. This theme had, however, previously been investigated by Adam Smith (1776) more than two centuries before, as cited by Marks (1987):

“The directors of such companies (joint stock companies) ... being the managers rather of other people’s money than of their own, it cannot well be expected that they should watch over it with the same anxious vigilance with which the partners in a private co-partner frequently watch over their own ... Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company.”
(Book 5, Chapter 1, Part 3, Art. 1)

Nowadays, the interests of such companies (public corporations) are regularly associated with the study by Jensen and Meckling (1976) who developed the idea of the separation of ownership and control in modern corporations as an agency relationship. They explain this as a contractual relationship where the shareholder “principals” delegate manager “agents” to provide some services in the firm, taking into consideration the need to satisfy the interests of the shareholders. However, conflicts of interest may exist between agents and shareholders as the agents have targets that are different from those of the principals. Based on agency theory, shareholders suppose that managers or board members should act and make decisions in the best interest of the shareholders, whereas the managers or board members do not necessarily always make decisions in the best interest of the owners (Padilla, 2002). This deviation from the contractual relationship results in an agency problem. Accordingly, a theory was developed to deal with agency problems.

The basic assumption of agency theory is that the agency problem emerges due to the conflicts of interest between agents and principals (Fama and Jensen, 1983a; Jensen and Meckling, 1976). There are several reasons for conflicts to arise in corporations, for instance: (1) managers may aim to maximise their own benefits rather than promote shareholder value (Jensen and Meckling, 1976). This conflict could be compounded by ineffectual management monitoring from shareholders. This is due to the dispersion of share ownership, where the incentives for such tasks (monitoring) are absent among shareholders. As a result, company

managers might be able to achieve their own purposes at the expense of shareholders (Hart, 1995).; (2) managers are interested in low-risk investments and less trading on equity, as this approach may reduce the risk of bankruptcy and avoid damaging capital management and portfolio (Denis, 2001).; (3) free cash generated by a company often causes serious disagreements between managers and shareholders. For example, shareholders tend to get free cash flow both through share repurchases and earnings, whilst a manager prefers to utilise free cash flow to invest in negative net present value (NPV) projects or expand the size of the company through new projects rather than returning it to shareholders (Denis, 2001). Grant (2003) argues that the primary objective of principals is to maximise the value of their interest, while the primary objective of agents is the expansion and growth of the company; success positively reflects on the management and quite often their bonuses and prestige are positively associated with the size of the company; (4) worthless contracts between managers and shareholders can lead to a much greater agency problem (Fama and Jensen, 1983a). Ekanayake (2004) outlines the conflict between managers and shareholders as:

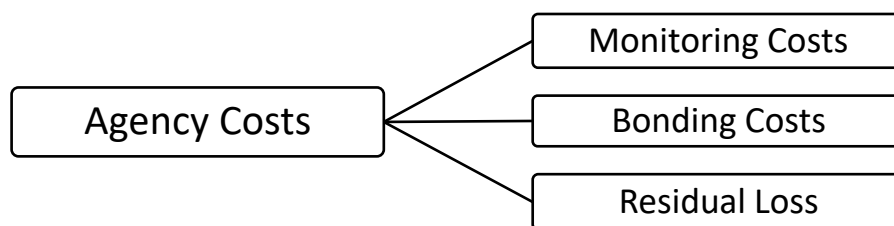
“agents are self-interested, risk-averse, rational actors, who always attempt to exert less effort (moral hazards) and project higher capabilities and skills than they actually have (adverse selection)” (p.49)

It is likely that the agents have better knowledge of the company than the principals with respect to day-to-day issues, future actions and their potential effects (Ross, 1973). When there is a discrepancy between owners and managers regarding the amount of information, it is inevitable that agency problems will arise; as mentioned above, this develops from moral hazard and adverse selection. Moral hazard arises when there is an asymmetry of information between the principals and the agent, and the change in behaviour of the manager after reaching an agreement. Whereas adverse selection indicates a scenario in which the agent may be inducted by the principal and yet with the passage of time, it is evident he/she is not fulfilling the requirements of the company.

As reported by Jensen and Meckling (1976), the principal generally incurs some costs: monitoring costs, bonding costs and residual loss (Figure 2.1) in ensuring that the agent will undertake actions to maximise his or her own welfare. These costs are commonly termed

agency costs. Monitoring costs are spent by the shareholders to restrict the behaviour of agents. Due to information asymmetries between shareholders and corporate managers, the necessity of monitoring costs increases and structuring financial contracts becomes more complex; these may comprise additional costs such as the cost of preparing reliable accounting information and audits, manager remuneration and the cost of replacing executive managers and/or management team. Bonding costs are expenses paid by shareholders to agents instead of paying a high proportion of monitoring costs, generally in the form of salary and bonuses (e.g. the cost of providing full information to shareholders regarding the company). These costs impact the agent's efforts, ensuring they act in such a way that is not detrimental to shareholder interests. Even with monitoring and bonding costs, the convergence of the interests of managers and shareholders does still not occur. The cost of reducing the principals' interest due to a mismatch of actions, and thereby boosting the self-interest of the principal and the agent, is regarded as the residual loss.

Figure 2.1: Types of Agency Costs



The separation of ownership and control creates appropriate opportunities for individual managers to participate in exploiting shareholder wealth. For instance, managers may increase their wealth by increasing compensation, bonuses or fraud, without cost-sharing. The earlier literature relating to ownership structure and corporate performance attempts to curb the agency problem in dispersed companies suffering from conflicts of interest between managers and shareholders. In light of this, Jensen and Meckling (1976) suggest that when managers own some firm stocks, this creates a greater manager incentive. If managers have higher ownership stakes, they will have a greater incentive to improve performance whilst reducing consumption in terms of executive privileges, since they share the losses and wealth with the other shareholders. They propose that managerial ownership can reduce agency cost through coordinating the interests of managers and shareholders, leading to improved performance.

On the other hand, Stulz (1988), Morck et al. (1988) and Denis and McConnell (2003) assume that an increase in managerial ownership increases an entrenchment effect. Managerial ownership provides more voting power to immunise managers against control and discipline, whether internal or external. Thus, it becomes hard for other shareholders to dismiss underperforming managers who have large voting rights in the company. Other studies argue that the ownership structure of each organisation should be designed to be at the optimum level to maximise profits (Demsetz, 1983; Demsetz and Lehn, 1985).

Moreover, Shleifer and Vishny (1997) argued that companies with a managerial structure divorced from the ownership structure are likely to be more profitable and perform well. This is because the principals have incentives to monitor and control management activities, thus making sure their investment is protected and the value of the company grows. Despite this, controlling shareholders may also obtain their own benefit through the use of the company's wealth, because they have considerable power over management activities, consequently enabling them to confiscate other shareholders' interests. According to Al-Ghamdi and Rhodes (2015) the main problem of such companies is the conflict of interest created by insiders, also known as concentrated ownership.

2.2.1.2 Principal–Principal Conflicts (Type II Agency Problem)

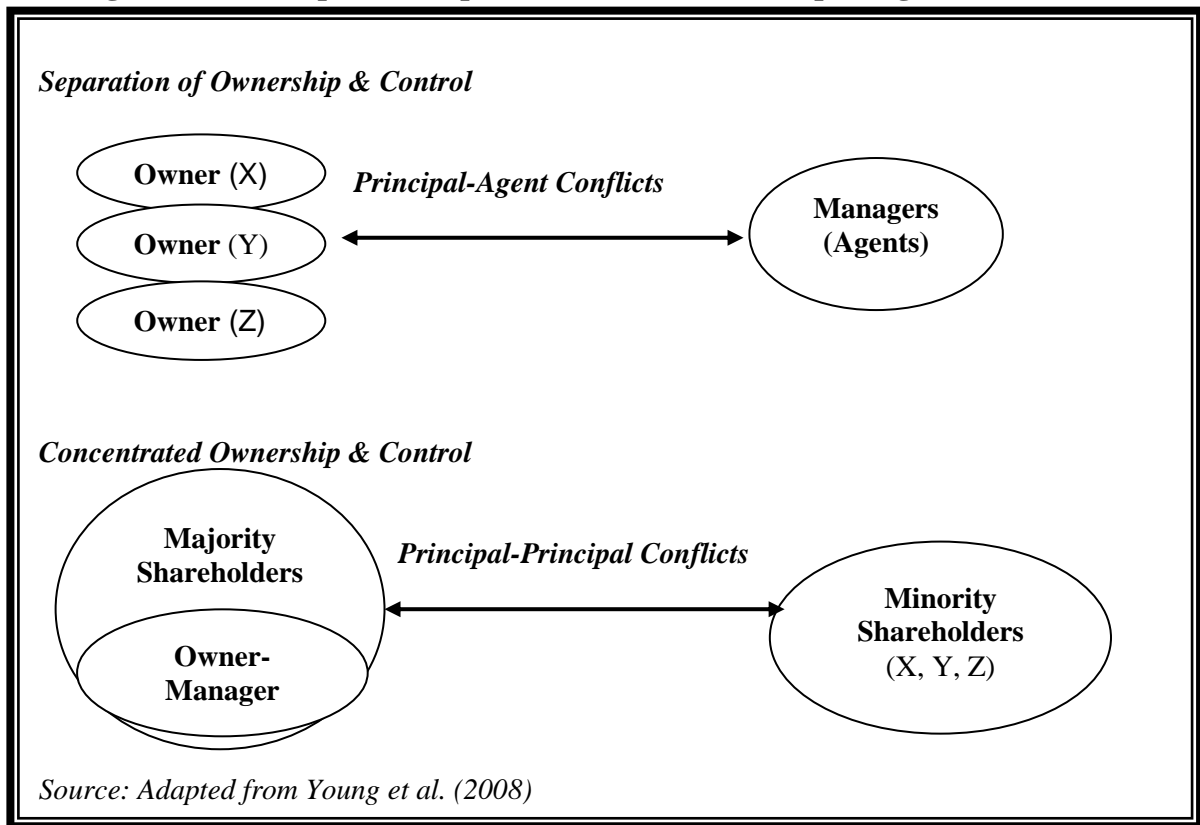
A significant number of companies are characterised by concentrated ownership where ownership and control cannot be fully separated. The existence of a controlling shareholder in companies with concentrated ownership is also common. The term controlling shareholders refers to shareholders who possess a significant number of voting shares in a company, and thus have effective control, whether directly or indirectly, over the operations and policies of firm. Dharwadkar et al. (2000) argue that the controlling shareholders therefore have more incentive to control their shares by increasing their ability to participate in making decisions and monitoring operations in the firm. Commonly, the controlling shareholders occupy the managerial role in the companies as top executives or board members. Shleifer and Vishny (1997) and La Porta et al. (1999) define a shareholder as a “controlling shareholder” when he/she owns between 5% and 50% of outstanding shares associated with voting rights. Therefore, there is no specific percentage of shares which defines "control" in the existing research. Related to this, Wiwattanakantang (2001) points out that it would be useful for

researchers to determine the proportion of control based on the legal and economic environment of each country. In line with agency theory, the controlling shareholders have incentives to take responsibility for the performance of managers as they share any significant loss of wealth suffered due to the company's performance and have enough strength to have an impact with less cost. Other shareholders also benefit from the supervision provided by the controlling shareholders, if it is consistent with their interests (Holderness, 2003).

However, in the case of controlling shareholders being concerned only with their own interests, their efforts may only be to increase their own benefits at the expense of minority shareholders (Dharwadkar et al., 2000; Young et al., 2008). These benefits could be in various forms, for example, transferring pricing and the benefits related to their personal needs (e.g. reputation, dividends, business performance and career opportunities) (Hart, 1995a). Therefore, pursuing their own interests regardless of other shareholders' interests in concentrated ownership leads to other serious conflicts, known as principal–principal conflicts or agency problem type II. Young et al. (2008) emphasise that this conflict becomes more visible when ownership and control are in the possession of a majority shareholder, or in the hands of the same individual and/or family. La Porta et al. (1998) argue that the primary conflict in a firm owned by relatively few shareholders is between the majority and minority shareholders because of the potential for the former to expropriate wealth from the latter.

Accordingly, agency theorists focused on "*identifying situations in which the principal and agent are likely to have conflicting goals and then describing the governance mechanisms that limit the agent's self-serving behavior* " (Eisenhardt, 1989, p.59). For example, Jensen and Meckling (1976) study how the involvement of managers in ownership helps align managers' goals with owners, and Fama and Jensen (1983) study the role of directors in management oversight. However, as mentioned above, the problem of the agency problem with a concentrated ownership structure such as those in Jordan and elsewhere in the Middle East is the conflict between minority shareholders and majority shareholders, with the majority of them families. The difference between principal–agent conflict (type I agency conflict) and principal–principal conflict (type II agency conflict) is illustrated in the figure below.

Figure 2.2: Principal–Principal Problem versus Principal–Agent Problem



The top section of the above figure shows that the main agency problem with separation of ownership and control is the principal–agent problem; the conflict of interest in such companies (separation of ownership and control) is between a significant number of minority shareholders and managers (agents) without any significant amount of the company's shares. The bottom section of the figure shows the agency problem of concentrated ownership and control firms is principal–principal problem, where the possible existence of conflicts of interest is between a large number of minority shareholders and the controlling shareholders who not only have the major concentrated ownership, but are also generally inclined to take over the management and board of directors through powerful positions, such as CEOs and chairperson, to carry out activities of the company that benefit them but may be detrimental to minority shareholders.

One of the major concerns in the area of corporate governance is the agency problem, whether between shareholders and managers or majority and minority shareholders. Homayoun and Homayoun (2015) argue that corporate governance can play an important role in reducing agency problems. From the viewpoint of agency theory, problems of separation of ownership and control will increase if the corporate governance structure is weak (Ongore & Kobonyo,

2011). Accordingly, corporate governance can be considered as a set of mechanisms designed to protect the owners from conflicts of interest with managers, then reducing agency costs and inspiring agents to make the same decisions that shareholders would have made themselves, such as investment in vital capital projects (Shleifer & Vishny, 1997; Fama & Jensen, 1983a). Therefore, the aim of corporate governance is to create sufficient governance mechanisms so as to enhance firm performance and maximise wealth.

Agency theory can also be applied to concentrated ownership in order to mitigate the conflict between majority and minority shareholders. Villalonga and Amit (2006) discuss that such conflicts occur if the majority shareholder who takes the dominant place in the firm extracts his/her own benefits at the expense of other shareholders. For example, in family firms owners who have a large controlling share could stand for family interests and may have sufficient incentives to monitor the firm, which may lead to the confiscation of assets to increase their wealth at the expense of non-family shareholders, instead of improving firm performance. Indeed, family firms can create their own destiny through selecting and combining the proper control mechanisms (Van den Berghe & Carchon 2002). Therefore, the interaction between family firms and corporate governance is likely to affect family firm performance as well as their choice of ownership structure and firm decisions (Pindado & Requejo, 2015).

In short, the most important outcomes of agency theory, is its impact on conflict problems. Agency theory helps interests among various stakeholders who participate in governance to be combined and allows the company to recognise possible issues before a serious threat emerges, so developing the basic conditions for the long-term development of the company (IFC 2011)³. In addition, agency theory improves the process of reaching a decision, for instance, since each of the shareholders and directors are fully informed and the communication process is regulated efficiently, as well as the governance structure enables them to realise their roles and responsibilities in a clear way. This leads to a substantial increase in the efficiency of the commercial and financial activities of the company (IFC 2011).

³IFC is a member of the World Bank Group. It is the largest global development institution focused exclusively on the private sector in developing countries.

2.2.1.3 Agency problems in Family Firms

Family control and ownership characterise the business sector in many countries around the world (Morck et al., 2005; Chen et al., 2010). Perhaps even more importantly, however, such firms have in common concentrated ownership. Simply put, this means that ownership and control are in the same hands. Fama and Jensen (1983) and Schulz et al. (2003) argue that the alignment between management interests and growth opportunities in the owner-manager relationship ultimately reduces the need for expensive mechanisms to monitor management behaviour. They further argue that agency problems between agents and principals can be reduced when ownership and control is in the hands of the same individual/family, since these common interests significantly reduce opportunistic manager behaviour. In other words, when the claimant and decision-maker are the same, this reduces the requirement for expensive monitoring by strangers, and therefore improves firm performance and value. In their study, Fama and Jensen (1983) also pointed out that family-controlled firms fall within this criterion of tight ownership and control:

“Family members have many dimensions of exchange with one another over a long horizon and, therefore, have advantages in monitoring and disciplining related decision agents” (p.306).

Anderson and Reeb (2003) also find that in family firms, the family owners have the incentive and strength to take control of management positions, and thus this ease free-rider agency costs and enhances revenues.

As mentioned earlier, family-controlled companies face less acute type I agency problems and more principal–principal type II problems, i.e. conflict between controlling (majority) and non-controlling (minority) shareholders (Anderson & Reeb, 2004; Wang, 2006; Ali et al., 2007; Adiguzel, 2013). According to Ali et al. (2007), family firms face type II agency problems due to the possession of large shares of ownership and control in the firm. Further, family firms are less independent than other firms because the board of directors is mostly composed of family members. In addition, these shareholders enjoy a great deal of control over the firm, and thus family members may experience more benefits at the expense of minority shareholders. This may also lead to the manipulation of accounting profits and delays or non-disclosure of bad

news (Lemmon & Lins, 2003). These benefits caused by the family's control are the primary source of principal–principal conflicts, and are likely to lead families to sell firm assets to themselves at a low market price, or even to control the most lucrative departments of the company and merge them with their own privately owned firms. Consequently, the minority shareholders will feel uneasy and become unwilling to continue or even invest in the company, thus they are pushed to sell their shares (Young et al., 2008; Boubakri et al., 2010).

In family firms, the expropriation of minority shareholders rights takes several forms, some lawful, others unlawful or through participating in some undisclosed transactions (La Porta et al., 2000). The expropriation of benefits develops from four factors:

- (1) Involvement in management procedures by families, where they benefit themselves at the cost of firm performance because of their considerable power and control over the company. Family owners have substantial ownership of cash flow rights, which may lead to investment decisions that are not necessarily consistent with the interests of minority shareholders (Fama & Jensen, 1985b; Anderson & Reeb, 2003). Further, the immunity afforded by family ownership gives further incentives to family members to allocate firm resources to their private projects, rather than maximising firm value (Faccio et al., 2001; Villalonga & Amit, 2006).
- (2) Absence of the probability of bidding by another agent; the high family ownership stakes help to minimise the potential for bidding by other outside investors, because family members can access more benefits through their voting rights and excluding other shareholders, and this can lead to a declining market valuation (Barclay & Holderness, 1989).
- (3) Family allocating unqualified employees, such as relatives, friends and other personal acquaintances, to effective positions (Faccio et al., 2001). Anderson and Reeb (2003) find that families sometimes want to fill executive administrative posts from the family members to further support their position, which limits the labour pool to a very small group and thus access to qualified talent is reduced, leading to a competitive disadvantage for family firms.

- (4) If principles act in their own interests, for example, purchasing products and services at high market prices and selling them at prices lower than the market rates to firms that are owned by them, this can adversely influence firm value (Burkart et al., 1997). This kind of behaviour enables family members to expropriate the wealth from minority shareholders in the firm. For this reason, firm performance and productivity might be decreased (Shleifer & Vishny, 1997; Faccio et al. 2001).

In short, much existing research supports the idea of family ownership and control as a source of competitive advantage (Demsetz and Lehn, 1985). From the agency perspective, Jensen and Mackling (1976) argue that family firms' structure helps to reduce agency problems and maximise firm value through the alignment of interest between family members and family owners. Martínez-Ferrero (2016) stated that family ownership relates to a better controlling and monitoring toward the management decision to prevent information asymmetry and to avoid the risk of discretion. An increasing body of literature is focused on the question of family association in firm performance, where most studies comparing family firms with other non-family firms explain why family firms are better (McConaughy et al., 2001). On other hand, family firms could face another type of agency problem that are mainly due to the controlling family shareholders exploiting their authority for their own benefit at the expense of minority shareholders. Both management entrenchment and altruism can lead to higher agency costs resulting from this conflict (Ling et al., 2001). Besides, the distinctive assets and capabilities of family businesses may be the reason from the perspective of resources-dependence (Chrisman et al., 2005). So, family firms have strong and distinctive advantages for corporate governance and performance, which are complemented by some distinctive disadvantages.

2.2.1.4 Agency Theory and the Jordanian Corporate Environment

The Jordanian government has taken several steps over the years to reform the corporate governance system. The development of the 2009 Jordan Corporate Governance Code (JCGC) constitutes a cornerstone of the reforms. Similar to other corporate governance codes, the JCGC seeks to reduce agency conflicts between managers and shareholders by improving transparency, accountability and responsibility of corporate boards of directors (Ibrahim and Hanefah, 2016). This is particularly important within the Jordanian context due to the presence of high ownership concentration in Jordanian listed firms (ROSC Jordan, 2004). Such

ownership concentration could adversely affect the rights of small shareholders (Baydoun et al., 2013); thus creating a conflict of interest between small shareholders and large shareholders. For example, large shareholders have the power to appoint their friends and relatives. The appointment of such directors could mean that they might look after the interests of large shareholders at the expense of small shareholders. In addition, favouritism is commonplace in appointments to management positions due to the influence of large shareholders (Al-Jazi, 2007). Moreover, family firms represent a considerable part of Jordanian businesses. Implications of this include that family shareholders might create power bases based on their voting rights, manipulating firm policies to control managers' actions in their own interests, thus increasing the agency problem and undermining firm performance. On the other hand, family shareholders can be expected to monitor management decisions more closely due to their increased stake in the firm, which would expropriate minority shareholder interests. Both alternatives are possible, thus, such practices can have an adverse impact on financial performance. Therefore, the application of an agency theoretical framework becomes even more important in the context of Jordan.

2.2.2 Stewardship theory

In contrast to the agency theory, stewardship theory relies on the idea that executive managers are not motivated by individual interest, but instead by the interests of shareholders (Davis et al., 1997). Therefore, managers should be fully empowered to manage companies as they represent a good steward of the resources that have been delegated to them (Letza et al., 2004). Further, stewardship theory has been developed based on a several assumptions about the behaviour of senior managers, as follows. Firstly, the interests of agents are aligned with the owner's objectives (Davis et al., 1997). Secondly, it assumes that since the managers are trustworthy, combining the positions of chairman and CEO could be the most appropriate internal corporate governance practices to run a company (Donaldson and Davis, 1991). Precisely, executive managers can access formal/informal information and have knowledge of the company they manage, making them more capable to making effective decisions (Donaldson and Davis, 1994). Finally, corporate managers seek to use resources in the best possible way to increase the value of companies (Davis et al., 1997), fearing any misconduct in using these resources may affect their reputation and career prospects (Conyon and He, 2011).

The above discussion shows that the basic argument of this theory contradicts the agency theory that assumes a conflict of interest between agents and principals (Donaldson and Davis, 1991). Stewardship theory suggests that the managers are trustworthy, and the agency problem associated with the agents is supposed to be negligible (Manawaduge, 2012). Based on these arguments, stewardship theory can contribute to improving corporate governance.

2.2.2.1 Stewardship Theory and the Jordanian Corporate Environment

The JCGC recommends separating the positions of the CEO and chairperson. Further, the code induces the importance of non-executive directors on the board of directors, and that at least one third of the directors should be independent. Accordingly, the code's purpose is to advance corporate governance accountability by strengthening managerial oversight and monitoring. This directly contradicts the assumptions of the stewardship theory, which suggests that managers are trustworthy and may not necessarily require intensive supervision of their management performance. However, the nature of ownership structure in Jordanian firms, which is characterised by a high level of family ownership, is considered as a possible reason of applicability of stewardship theory in the Jordanian corporate context. This is because the family owners usually appoint their friends and relatives as directors. Thus, appointed CEOs and directors are likely to be considered trustworthy (Siebels and Knyphausen-Aufseß, 2012)

2.2.3 Stakeholder Theory

Stakeholder theory is considered as a broader perspective of corporate governance that emerged in the 1970s as a result of criticism of the shareholder model (Sternberg, 1997). Freeman (1984) defines stakeholders as any individual or group who are affected or can affect the corporate operations. Therefore, the term stakeholder may cover a large group of participants; in fact, it applies to anyone who has a direct or indirect stake in the business (Carroll & Buchholtz, 2002). Stakeholders include shareholders, suppliers, employees, creditors, customers and communities in the vicinity of the company's activities, as well as the public (Solomon, 2010). According to Solomon (2010, p.15) explains the theoretical basis of stakeholder theory as follow: *“companies are so large, and their impact on society so pervasive, that they should discharge an accountability to many more sectors of society than solely their shareholders”*. In contrast to agency theory and stewardship theory in terms of their views about management behaviour, stakeholder theory assumes that managers are accountable to all stakeholders (Chen and Roberts, 2010).

Stakeholder theory implies that the firm has to secure the interests of various stakeholders, including shareholders (Solomon, 2010). However, the expectations of a company's stakeholders vary. For instance, shareholders expect better returns, whereas workers expect better income and more job security. Nonetheless, creditors suppose the company to have a solid financial position to ensure the protection of their investments, while policy-makers expect compliance with corporate governance rules to protect stakeholders.

There are a number of assumptions underlying stakeholder theory. First, firms should be operated not only for the owner's interests, but also for the interests of the broader society (Chen and Roberts, 2010). Second, managers are equally accountable to all stakeholders, not only the firm's shareholder's, but also other firm stakeholders, such as employees, creditors, customers, suppliers and local community (Clarke, 1998). Third, stakeholder theory is strongly associated with the concepts of morality and corporate social responsibility in business (Westphal and Zajac, 2013).

Nevertheless, the stakeholder theory has been criticised from two perspectives (Sternberg, 1997): (i) the stakeholder theory assumptions contradict the key objective of the company as it seeks to increase the shareholders wealth: and (ii) it also conflicts with the manager-shareholder relationship, suggesting that agents are mainly accountable to the principals. In this regard, stakeholder theory is arguably inconsistent with the fundamental principles of corporate governance (Albassam, 2014). However, according to Clarke (1998) and Chen and Roberts (2010), stakeholder theory remains one of the major corporate governance theories.

2.2.3.1 Stakeholder Theory and the Jordanian Corporate Environment

Although the fact that the corporate governance codes in Jordan are based on the Anglo-American corporate governance model, the 2006 JCGC does includes guidelines on protecting the interests of stakeholders and social responsibility. Therefore, it is expected that the main objective of Jordanian companies is not only to serve the interests of shareholders but also the interests of other stakeholders, such as suppliers, employees, governments and local communities. In addition, the Islamic view of corporate governance is relatively similar to that of stakeholders. From an Islamic point of view, the idea of corporate governance must be value-

based and encourage justice for all participants (Al-Turki, 2006). For example, Zakat⁴ as an example of Islamic values enhances charity for society. Thus, improving the relationship between companies and society (Nadzri et al., 2012).

Nevertheless, there may be some obstacles that can hamper the effective application of stakeholder theory in the context of Jordanian companies. For example, ownership in Jordanian listed firms is highly concentrated in the hands of large shareholders (such as, individuals and families), therefore, it can be reasonably expected that family shareholders are more likely to prioritise their own interests without taking into account the interests of other stakeholders. Moreover, Jordan is characterised with limited awareness of corporate governance (Shanikat and Abbadi, 2011). In particular, general appreciation of effective corporate governance practices is remain relatively low among company stakeholders, which could adversely affect the applicability of stakeholder theory in the context of Jordanian companies.

2.2.4 Resource Dependence Theory

Resource dependence theory is based on the idea that outside resources (e.g. expertise, capital and raw material) influence on a company's actions. Pfeffer and Salancik (1978) argue that managing and controlling vital environmental resources is crucial to the success of the company. From this perspective, through access to important outside resources and obligating an active managerial approach to external resources, companies can boost their power (Pfeffer, 1981). Consequently, the company can minimise the influence of external risks. Chen and Roberts (2010, p.653) explain that

“Organizations are not self-contained or self-sufficient, they rely on their environment for existence, and the core of the [resource dependence] theory focuses on how organizations gain access to vital resources for survival and growth.”

In terms of the board of directors, the theory suggests that directors should not only be involved in a monitoring role, but also work to provide critically needed resources, such as establishing business connections and contracts, and providing advice to managers (Nicholson & Kiel,

⁴ Zakat is an Islamic social tax: Every Muslims must pay Two and five tenths of their wealth each year for charity, such as donations to the needy and poor (Kamla et al., 2006).

2007; Chen, 2011). Consequently, the board of directors is a key link between the corporation and financial and non-financial resources, which are crucial to corporate performance (Pfeffer, 1972; Pearce & Zahra, 1992). The director offers these resources through their channels with external firms or by obtaining information from important authorities outside the firm (Corbetta & Salvato, 2004). Thus, enhancing financial performance maximises shareholder wealth and assists in the survival of the firm (Pearce & Zahra, 1992; Sing et al., 1986).

The board of directors also allows access to the resources required by the company, for instance, the presence of the executive director of a lending institution may help to obtain credit insurance lines, or the presence of a lawyer who is a legal adviser to the company may help to reduce the cost of security (Daily et al., 2003). This is confirmed in the research on the appointment of outsiders to Japanese boards, by Kaplan and Minton (1994), who studied determinants and implications for managers, and identified that businesses often tend to assign financial directors to the board if the stock price or the company's performance deteriorates. According to resource dependency theory, the board of directors has the ability to stand for the interests of various stakeholders, such as creditors, employees, customers, suppliers, regulators and policy-makers (Nicholson & Kiel, 2007). Thus, the board of directors assists the firm to achieve competitive advantage by serving as a direct link between the firm and the environment within which it operates (Chen & Roberts, 2010).

With respect to a family firm, resources dependency theory suggests that family members with higher skills and resources also contribute to the firm's prospects. Dalton et al. (1998) discuss that family directors have more incentive to provide resources such as counsel and advice, promoting connections with other organisations, and improving the reputation of the firm. Astrachan et al. (2002) discuss how each family member adds valuable business knowledge to a firm. Further, the experience of family members adds resources to the firm when reaching an improved decision on establishing contracts with external professional suppliers, or through social networks and professional individuals. These resources attained via family members *“enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness”* (Barney, 1991, p.101).

2.2.4.1 Resource Dependence Theory and the Jordanian Corporate Environment

The board of directors and ownership structure of Jordanian companies play an important role in enhancing corporate performance, which is consistent with the perspective of resource dependency theory. In Jordan, there are strong social relationships among people, where personal relationships could be useful in arranging business contracts and improving the connection between the firm and its environment. Adeyemi-Bello & Kincaid (2012) argue that personal networks of directors help company access resources for their success and survival. In addition, the existence of family firms in Jordan can be explained from resources dependency theory that such a business structure is able to provide additional resources to the corporation from the internal and external business networks created by the family members. Further, according to Marashdeh (2014) boards in Jordanian firms are generally heavily dominated by large block-holders, usually members of a single family.

2.2.5 Institutional Theory

Institutional theory is one of the major theoretical perspectives used in social science studies especially in the accounting literature (Scott, 1995). It provides a deeper understanding of economic phenomena in their surrounding environments, including cultural, religious, political and technological factors (Alghamdi, 2012). Institutional theory does not focus on the importance of intrinsic motivation, but on institutional elements that transcend organizational boundaries (Hoffman, 1999). The basic assumption of institutional theory that the company will seek to copy or imitate other companies because they share the same social system, so their practices must be similar. This gives corporations the equal opportunity for an active role in an institutional environment when the companies have the ability to move beyond institutional constraints. Institutional environment is defined as a set of legal, economic, social and political conventions that establish the foundational basis for producing product and services (Yi et al., 2012).

From the institutional theory perspective, corporate governance is considered as a change in institutional processes over time and how governance mechanisms “*fulfil ritualistic roles that help legitimize the interactions among the various actors within the corporate governance mosaic*” (Zainal et al., 2013, p.412). According to Saudagaran and Diga (1997), companies may implement corporate governance practices pursuing legitimacy and social acceptance,

regardless of the usefulness of these corporate governance mechanisms. Carpenter and Feroz (2001) refer to this process as “organisational imprinting”, arguing that such a process does not necessarily boost performance. Further, Carruthers (1995, p. 315) emphasizes that the process of institutionalisation is “*cultural and political one that concerns legitimacy and power much more than efficiency alone*”. Consequently, organizations and countries may develop governance regulations not because they enhance efficiency and corporate performance, but rather to advance legitimacy in society (Khadaroo & Shaikh, 2007).

2.2.5 Institutional Theory and the Jordanian Corporate Environment

Institutional theory appears to be an appropriate lens through which corporate governance can be investigated in the Jordanian business environment. The JSC established the corporate governance codes in 2009 as a guidelines for Jordanian listed firms. As compliance with these regulations was not mandatory, all listed firms on the Amman Stock Exchange have been required to comply or explain with these codes in order to improve organizational effectiveness. However, these guidelines do not necessarily enhance firms’ effectiveness, particularly if the factors affecting the institutional environment such as cultural and economic factors are not considered by the policymakers when establishing the guidelines. The recommendations in JCGC were largely informed by the OECD principles of corporate governance. Consequently, adopting these guidelines was based on worldwide best governance practices. However, factors affecting the Jordanian business environment such as culture, Islamic religion and different business structure (e.g., family firms) have not been taken in consideration when established the JCGC. Ignoring such factors may result in the inapplicability of these regulations in the Jordanian business environment. As companies comply with the JCGC, they may gain legitimacy in society, but their performance is less likely to be enhanced by such guidelines.

2.3 Theoretical framework of the Research

To examine corporate governance practices, a theoretical lens is needed. As corporate governance is related to various fields, including economics, management, finance, policies and ethics (Bebchuk and Weisbach, 2010; Solomon, 2010), a multiple theoretical frameworks are required for a comprehensive understanding of corporate governance issues. Therefore, it is difficult to rely on one theory, such as agency theory alone, in interpreting and explaining corporate governance practice (Sharma, 2013). To determine the appropriate theoretical

frameworks for this study, it is important to consider all the factors affecting the Jordanian business environment. The business environment in Jordan is influenced by several factors such as culture and religion. Furthermore, the Jordanian business environment has unique features that are different from those of other countries in terms of ownership structure, which has a direct influence on corporate governance practices in Jordan.

From the perspective of corporate governance, agency theory illustrates the conflict of interest between principals and agents, and the conflict of interest between majority and minority shareholders; this performs an important and essential function in the perception of corporate governance mechanisms (Robert, 2005). Agency theory suggests that corporate governance mechanisms can be introduced to alleviate managerial opportunism, thus reducing agency costs (Haniffa and Hudaib, 2006). For example, agency theory suggests a reduction in the number of executive board members could improve the board's independence (Solomon, 2010), and this may help shareholders hold board members to account (Bebchuk and Weisbach, 2010). Furthermore, agency theory proposes that CEO duality is likely to weaken the balance of power at the top level since it gives one person too much power over the decision-making process which may also lead to a potential conflict of interest as well as damaging the effective monitoring role of the board over the executives since its power is minimised (Fama and Jensen, 1983; Jensen, 1993). Based on this arguments, agency theory appears to be more relevant in explaining the variations in the quality of corporate governance mechanisms because its assumptions are consistent with CG recommendations.

Many scholars have relied on agency theory to examine corporate governance mechanisms and their impact on firm performance (Jensen & Meckling, 1976; Cadbury, 1992; Kiel and Nicholson, 2003; Adams and Ferreira, 2009; Mallin, 2010). With regard to the corporate governance mechanisms, the board of directors may help to reduce agency problems by better monitoring and taking disciplinary action on behalf of shareholders (Fama, 1980). According to Yoshikawa and Phan (2003), agency theory proposes that small boards are more useful and less complicated to coordinate among members, which leads to a positive impact on performance. Kiel and Nicholson (2003) further emphasise that the separation of the power of the CEO and chairperson has a positive impact on performance. Moreover, Fama (1980) asserts that appointing independent directors to the board is intended to control management issues,

which results in a positive impact on the performance of companies (Fama & Jensen, 1983b; Jensen & Meckling, 1976). The importance of board characteristics can also be explained according to agency theory. Adams and Ferreira (2009) notes that it is easier to monitor managers' behaviour when there are females on the board of directors. Accordingly, sound corporate governance is significant in the monitoring process and therefore leads to improved firm performance. It is also worth noting that agency theory has great value in developing the framework for corporate governance (Mallin, 2010).

Among all the important factors related to ownership structure, foreign and local ownership are usually considered the most important (Alwshah, 2009, p.75). Studies argue that when it comes to local ownership, traders consider both the incentives and the power to follow up on how management performs to be positively reflected in firm performance (see, for example, Shleifer & Vishny, 1997; Mitton, 2002).. Involving foreign investors in monitoring the board results in lower agency problems and thereby impacts positively on firm performance (Gillan & Starks, 2003).

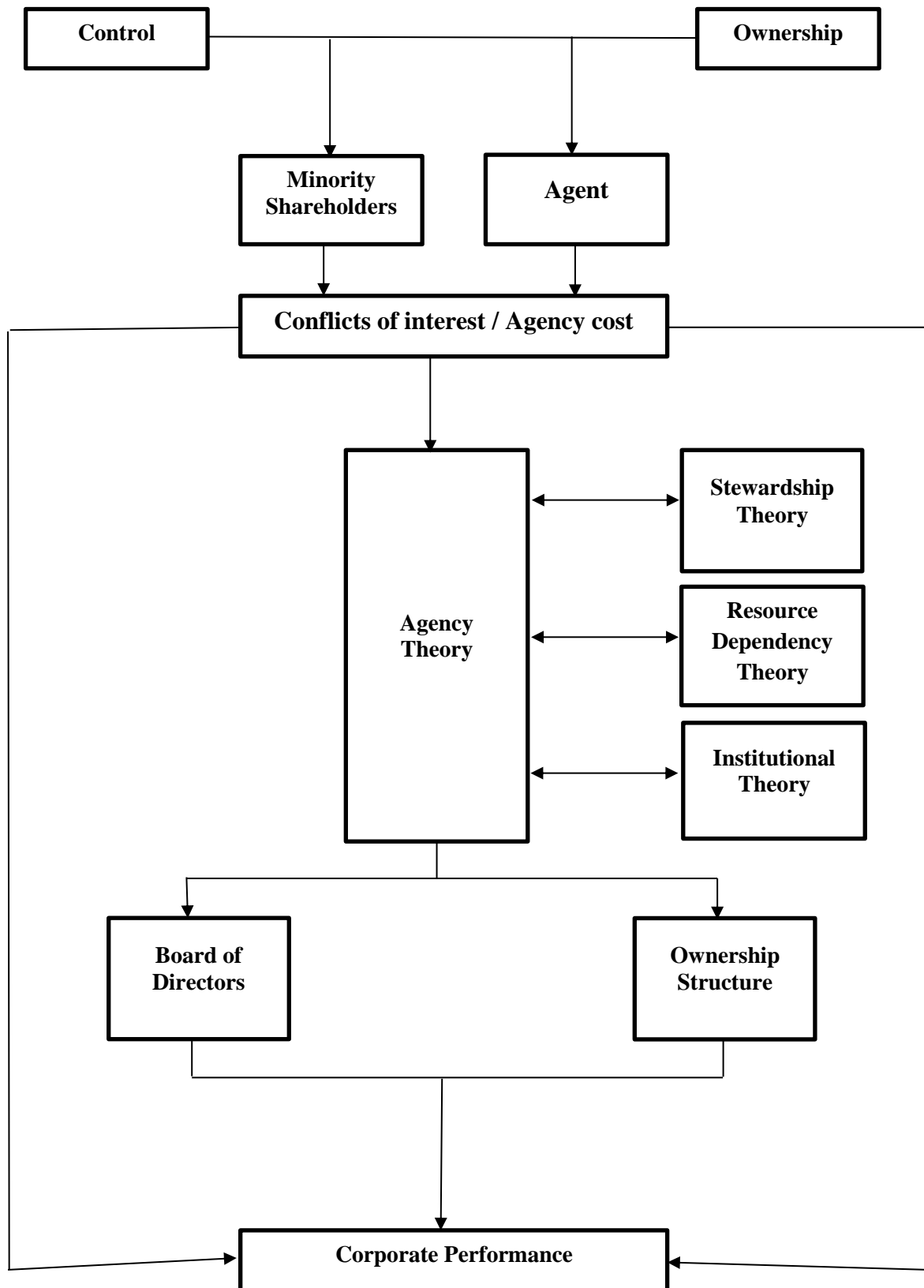
Further, as mentioned earlier, the version of agency problem (principal-principal problem) encountered in concentrated ownership structure such as those found in Jordan and elsewhere in Arab countries, is the conflict between minority shareholders and controlling shareholders with the majority of them families. The agency theory assumed if the interests of key shareholders are combined, this will decrease agency costs and lead to improved corporate performance (Chen & Jaggi, 2001). In terms of the board of directors, is responsible for performing in the best interests of both large shareholders and weak minority shareholders.

Besides agency theory, there are also other theories that are applicable to the Jordanian corporate context. These theories are stewardship, resource dependency and institutional theories. The nature of ownership structure in Jordanian firms, which is characterised by a high level of family ownership, is considered as a possible reason of applicability of stewardship theory in the Jordanian corporate context. This is because family owners usually appoint their friends and relatives as directors. Thus, appointed CEOs and directors that have a better understanding and knowledge about the nature of their firms are likely to improve the performance. In addition, the importance of personal relationships in arranging business contracts in the Jordanian corporate context is in line with the assumption of resource

dependency theory regarding the essential role of the board of directors in providing links between a firm and the critical resources that are necessary for the firm's growth (Adeyemi-Bello & Kincaid, 2012; Hillman & Dalziel, 2003). Moreover, considering the establishing process of the 2009 JCGC, institutional theory can give a useful understanding of corporate governance issues.

Considering all of the above, the study adopts multiple theoretical frameworks by augmenting agency theory with stewardship, resource dependency and institutional theories. A combination of these theories provides useful theoretical frameworks to understand corporate governance practices in the Jordanian corporate context. The figure 2.3 shows the theoretical framework of this thesis.

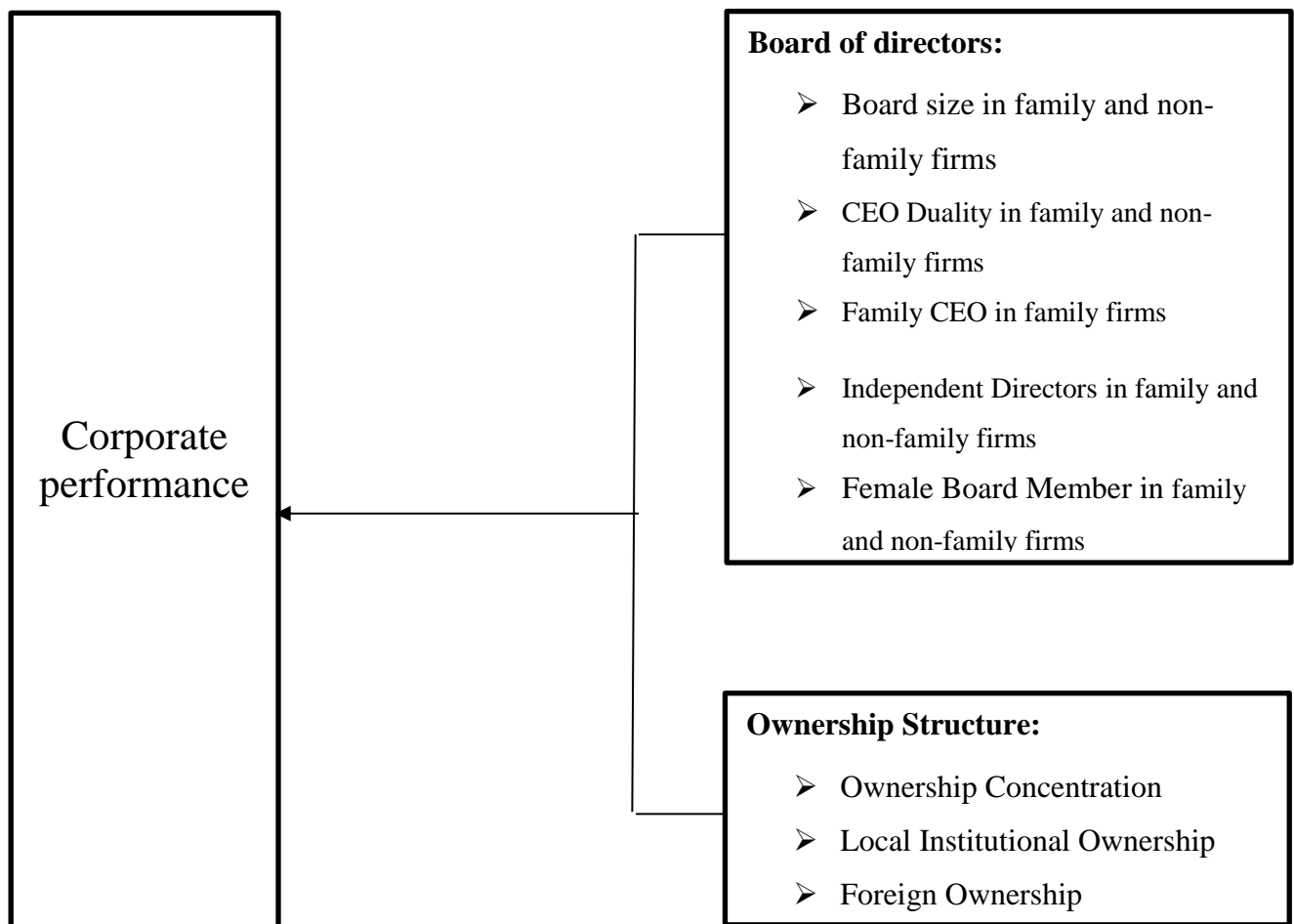
Figure 2.3: Structure of Theoretical Framework



2.4 Conceptual Framework

Based on the agency theoretical framework, this thesis includes board of directors' characteristics and ownership structures to examine if they affect the firm performance. This thesis focuses on Amman Stock Exchange firms divided into family and non-family firms. Referring to the framework in Figure 2.3, this thesis examines the board of directors' characteristics through board size, CEO duality, family CEO, independent directors and female board member, comparing family and non-family firms. Also, it examines the ownership structure classified as ownership concentration, local institutional ownership and foreign ownership.

Figure 2.4 Conceptual model on corporate performance



2.5 Corporate Governance Models: Developed Countries vs. Developing Countries

The system of corporate governance in place plays a key role in firm performance as it directly impacts the return on investments to suppliers of finance to firms (Edwards & Nibler, 2000). Various systems of corporate governance have been implemented across the world, and each system has special features and characteristics⁵ (Hasan, 2009). These regimes are broadly characterised in these two models (Franks and Mayer, 2001; Solomon, 2010):

- *Outsider models or (Anglo-Saxon model)*: This system is specific to firms from the U.S, UK and other English-language-speaking countries, characterised by diffused ownership which leads to shareholders and managers not sharing key interests (Jensen & Meckling, 1976).
- *Insider models or (Continental model)*: This system is specific to firms from Germany, Japan and emerging countries, characterised by concentrated ownership, where one shareholders has effective control of the firm. The central problem then becomes the interest deviation arising between controlling shareholders and non-controlling shareholders.

In the outsider model, the company is based on a significant number of shareholders, where each shareholder has a small fraction of company shares and so lacks incentive to engage in or monitor corporate affairs and may not even participate in decision-making with respect to the company's management. For that reason, dispersed ownership structures are referred to as outsider systems, these small shareholders being the “outsiders”. These shareholders trust the independent members of the board to play an active role in controlling managers’ behavior to focus on improving company performance. The duties required of independent members of the board include; securing the rights of shareholders, ensuring adequate disclosure and objective evaluation of the performance of the managers, hence the outsider system is considered better for accountability. As a result, the outsider system requires a robust and liquid securities markets, an advanced regulatory framework, and effective transparency and legal structures (Banks, 2004).

⁵ These include legal systems, business cultures, regulatory and the political environments (Denis and McConnell, 2003; Shleifer and Vishny, 1997).

In the insider model, the company has a minority number of shareholders, either firms, boards and families, who each possess a large number of shares in the company and often have a significant impact on the management of the company's operations. These groups or individual are called “insiders”. Therefore, concentrated ownership structures are referred to as insider systems. However, an insider system often suffers from low transparency and disclosure, weak capital markets and businesses relying on loans from banks (Clarke, 2007). The insider system is commonly found in Asian countries, in European countries and some corporations in U.S. For example, La Porta et al. (1999) reveal that in European countries 18% are government owned and 30% family owned, while more than 30% of the firms in their sample⁶ are owned by publicly held company. In line with La Porta et al, Franks and Mayer (2001) found that in Germany the most vital shareholders are firms, followed by families. Gorton and Schmid (2000) stated that in Germany concentrated ownership has a significant relationship to firm performance. Concentrated ownership is far more pronounced in emerging countries such as Brazil, Thailand, Saudi Arabia, Indonesia and Malaysia (see, for example, Alghamdi & Rhodes, 2015; Claessens et al., 2000). Therefore, Klapper and Love (2004) confirms that it is essential for emerging markets to strengthen their corporate governance standards. Singh (2003) suggested that in these markets there should be encouragement to companies to practice good corporate governance.

Table 2.1: Main features of Outsider system and Insider System

Features	Outsider System	Insider System
Country Levels	Stable Growth	Rapid Growth
	High income level	Low income level
	Strong legal protection	Weak legal protection
Firm Levels	Dispersed Ownership	Concentrated Ownership
	Control by delegated directors	Control by insider shareholders
Agency Problem	(Shareholders vs. Managers)	(Controlling Shareholders vs. Non-controlling Shareholders)

Source: Solomon (2010, p. 185)

Given the variety of corporate governance models, researchers have a tendency to concentrate on the financial impact of corporate governance mechanisms on corporations. These

⁶La Porta et al (1999) use a sample of 539 large firms from 27 wealthy economies include; Argentina, Australia, Austria, Canada, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Japan Korea, Mexico, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Hong Kong, Ireland, Israel, New Zealand, Singapore, United Kingdom and United States.

mechanisms can be classified into two types, ‘external’ and ‘internal’. Internal corporate governance mechanisms are characterised as consisting of a board of directors (Agrawal & Knoeber, 1996; Fama & Jensen, 1983b), corporate compensation (Jensen & Meckling, 1976), financial policies (debt financing) (Denis, 2001; Jensen, 1986) and majority shareholders (Denis & McConnell, 2003; Hart, 1995). While external corporate governance mechanisms include the legal system (Shleifer & Vishny, 1997), the market for corporate control (Bushman and Smith, 2003) and the factor and product market (Fama, 1980). According to Jensen (1993) stated that both types of mechanisms (external and internal) are suggested by agency theory to alleviate agency problems. Additionally, these mechanisms offer protection against unprofitable operations of the company and enforce the discipline of shareholders and management.

Effective corporate governance mitigates problems of agency, however, the problem varies between developed and emerging countries (Young et al, 2008). Where the agency problem in most companies in developed countries arises from a conflict between managers and shareholders (Jensen & Meckling, 1976) companies in emerging markets could face conflicts of interest between controlling shareholders and non-controlling shareholders (La Porta et al., 1998) as ownership is concentrated in the hands of families. The current thesis will take these special circumstances of emerging countries as its central focus to strengthen the existing literature.

Indeed, numerous studies document that governance mechanisms affect the financial performance of publicly listed companies (see, for example, Davidson, Goodwin-Stewart & Kent, 2005; Brown & Caylor, 2006; Baxter & Cotter, 2009; Cheung et al., 2015), while there are comparatively fewer studies which investigate whether governance mechanisms have the same impact on financial performance when ownership is concentrated, and in particular when ownership is mostly in the hands of families (Connelly et al., 2010; Debicki et al., 2009). Therefore, Desender et al. (2013) suggest that the effectiveness of corporate governance mechanisms should take into consideration ownership concentration in terms of monitoring management, its effects depending on the type of controlling shareholder. Likewise, Aguilera and Crespi-Caldera (2016) argued that ownership can easily be compared across countries, but the effect of corporate governance mechanisms varies greatly owing to corporate ownership

concentration. Therefore, the authors suggest that “*future research should draw on micro data on firm specific ownership structures and their corporate governance practices to better understand the cross-national diversity of governance and its meanings and consequences*”. This thesis aims to more comprehensively understand corporate governance mechanisms by using such detailed methods in the context of Jordan.

In Jordan, corporate governance is a developing concept, and capital market authority is still in the process of educating the markets on the benefits of applying good corporate governance. Further, many of the laws and institutions are still relatively new and yet to be tested. As a result, the search for mechanisms to enhance corporate governance and improve firm performance has mostly focused on the structure of ownership and the board of directors. More research is therefore required to propose improvements in corporate governance practice. This study aims to evaluate the influence of the board of directors and ownership structure on performance of Jordanian family and nonfamily listed firms over the period 2009–2015.

2.6 Summary

This chapter reviews the various theoretical explanations of corporate governance mechanisms influence on corporate performance. Most corporate governance studies focus on dispersed ownership, where the company has a variety of shareholders with decision-making authority delegated to managers to enable them to run the company. However, the managers or board members do not necessarily always make decisions in the best interest of the owners (Padilla, 2002). This deviation from the shareholders’ interests (type I agency problem) negatively affects firm performance. On the other hand, as ownership becomes more concentrated (e.g. family firms) there may be an overall reduction in the type I agency problems now arise because controlling shareholders can expropriate minority shareholders (type II agency problem). Controlling shareholders impact the selection of directors and managers, and exchange firm profits and resources to pursue their own benefits. Therefore, agency theory expects that corporate governance mechanisms can mitigate agency problems and reduce agency costs.

In addition to this, the study adopts multiple theoretical frameworks by augmenting agency theory with stewardship, resource dependency and institutional theories to conduct the research analysis. The main motivation for adopting a multiple-theoretical approach can be summarised

as follows. First, it was indicated that every theory of corporate governance, including agency theory, has a limited capacity to explain the relationship between corporate governance and company performance (Nicholson and Kiel, 2007; Sharma, 2013). In other words, these individual theories suffer from several weaknesses (Chen and Roberts, 2010), but together they can complement each other and improve their ability to predict. Second, the corporate governance is complex, and related to various fields, including economics, management, finance, policies and ethics (Solomon, 2010). Therefore, it is difficult to rely on one theory, such as agency theory alone, in interpreting and explaining corporate governance practice (Sharma, 2013). Third, adopting several theories is a direct response to recent calls for the use of complementary or alternative theories in corporate governance and corporate finance studies, which can promote theoretical pluralism (Zattoni et al., 2013). Finally, this study generally in line with current empirical studies that have adopted a multi-theoretical approach (for example, Black, 2001; Haniffa and Hudaib, 2006; Nicholson and Kiel, 2007; Sin Huei, 2012), and thus comparisons can be facilitated with the results of these studies.

The chapter then reviews governance models in developing and developed countries and the special circumstances in emerging countries identifies in the literature upon which informs this study. Companies in emerging markets face conflicts of interest between controlling shareholders and non-controlling shareholders, as ownership is concentrated in the hands of families. The literature further suggests that detailed microanalysis of firm ownership and governance structures are the most appropriate way to more comprehensively understand corporate governance mechanisms, as this thesis seeks to do in the context of Jordan.

The following chapter provides a summary of literature on family business and discusses theoretical literature and empirical studies on corporate governance mechanisms, specifically board of directors, and the structure of ownership on the performance of family and non-family firms.

CHAPTER THREE: Literature review and Hypotheses Developments

3.0 Introduction

The influence of corporate governance on corporate performance is subject to significant ongoing debate in the literature of corporate finance. At the same time, according to Mustakallio et al. (2002) family firms require a governance structure that improves their performance and helps to minimise harmful conflicts. From the governance perspective, the main feature that distinguishes family firm from others is family ownership and control in the business. Previous studies indicate that corporate governance mechanisms have different impact on family firms from their non-family counterparts (Setia-Atmaja et al., 2009; Navarro and Anson, 2009), and that some governance mechanisms for controlling type I agency problems (i.e. the takeover market and incentive compensation) are less effective in dealing with type II agency problems. This means that mechanisms such as board of directors may be having different influence in controlling type II agency problems (Setia-Atmaja et al., 2009), and thus makes governance in family business more complicated due to not being able to apply a typical corporate structure because of the central role that the family plays in ownership and management (Shenoy, 2014). Therefore, an assessment of whether family participation in the institution's control can create conditions for different performance compared to non-family firms has received increasing attention (Erбетта, Menozzi, Corbetta, & Fraquelli, 2013).

Reviewing prior research and empirical studies on corporate governance, family firms and performance reveals a wealth of literature produced in relation to the impact of corporate governance on the financial performance of family and non-family firms. This study examines the relationship between the board of directors and ownership structure with firm performance. In addition to these mechanisms, the study also deals with the impact of firm size, age and leverage on financial performance. This chapter provides a review of the theoretical literature, previous and empirical studies on corporate governance mechanisms, family firms and performance from the Agency and Resource Dependency theory perspective, and previous debates and disagreements with their conclusions about the relationship between corporate governance mechanisms and the performance of both family and non-family firms.

3.1 Family Firms

Over the past two decades, a great interest in the issue of family business has developed among scholars, as highlighted in many studies (see, e.g., Anderson & Reeb, 2003; Chen et al., 2010). Morck et al. (2005) also stress the importance of family firms throughout most economies and the focus of corporate control in the hands of a very few wealthy families and the scarcity of ownership dispersion. Bhattacharya and Ravikumar (2001) emphasised the dominance of family businesses. They argue that family businesses are important in the early stages of the country's economic development and continue to play an important role in most of developing countries. This confirmed by Rexhepi (2015), argues that family firms constitute the most common and oldest form of business organization, accounting for more than 70% of the total business activity and played a crucial role in the economic development of the environment

Family firms also have an impact on the global economy (Burkart et al. 2003). It is estimated that the overall economic impact of family firms on global Gross Domestic Product (GDP) is more than 70 per cent (Family Firm Institute, 2009; Osunde, 2017). Studies on corporate ownership structures show that family firms represent a large proportion of the corporate sector in most countries of the world. For instance, in a study conducted by Anderson and Reeb (2003) family firms represented a large percentage of all of U.S. firms, approximately 33% and 46% of the Standard and Poor (S&P) 500 and 1500 index companies, respectively (Anderson and Reeb, 2003; Chen et al., 2008). In the UK, family businesses representing 66% of the private sector total. The UK family business sector is estimated to have employed 9.2 million people. This is 41% of total private sector employment (Institute for Family Business, 2011). LaPorta et al. (1999), in a study of 27 countries, showed that families controlled 53 per cent of publicly listed firms with a total market capitalisation of \$500 million. In several European countries, family businesses represent from 55% to 90% of all firms, and they are present in businesses of all sizes, from corner shops to big companies (for example, 40% of the 250 largest companies in France and Germany are family-owned) (Bernard, 2015). While in the Asian context, Claessens et al. (2000) report that over two thirds of companies in East Asia are family firms, owned by a single shareholder.

Indeed, these corporations also account for a large percentage of the listed firms in most Middle Eastern countries (OECD, 2003). Ernst & Young's (2014) report "*Middle East Family Business*

Survey” states that the family-owned business “*is one of the most common forms of business structures and that potential of family owned business to generate employment, wealth and welfare is enormous*”. The report provides further information on the importance of family business in the region, generating approximately 80 percent of the region’s GDP, and accounting for about 70 percent of total employment, overall, 90% of the companies in the Middle East are family owned businesses (Ernst & Young, 2014). Moreover, a study conducted by Fadhel (2004) shows that about 98% of oil producing companies in the Gulf Cooperation Council, which includes Saudi Arabia, Kuwait, and most of the other Gulf States, are family run. In the context of Jordan, family firms form a considerable part of its economy, where most shares are concentrated in the hands of large shareholders - “generally families” (ROSC Jordan, 2004). It is therefore clear from the literature that further consideration of this major corporate entity, the family firm in relation to corporate governance is vital. This is true globally as well as in the Jordanian context where this study seeks to develop knowledge.

In addition, the family business related literature that investigates family ownership and control has produced evidence of their impact on GDP and workforce (Miller & Le Breton-Miller, 2003; Institute for Family Business, 2008; among others). According to European Family Businesses (2012), family business represents 70 to 90% of all business sectors around the world and around 50 to 80% of jobs in most countries all over the world. This leads to the contribution of family businesses being approximately 70%-90% of global GDP annually (Habibur Rahman et al., 2017). It should be noted the fact that family businesses are common among listed companies, not only among privately owned companies, thus this organisational form is not limited to small and medium-sized enterprises (SMEs) as many people tend to think.

Furthermore, many studies that focus on the impact of family ownership and control on the different levels of achievement by the firm have varied results. For instance, Poutziouris et al. (2015) and Martikainen et al. (2009), showed that overall the findings on family companies are shifting slightly in favour of family businesses. This is due to U.S., UK and Western European family firms having proven to perform better than non-family businesses. On the other hand, there are also numerous studies revealing a negative impact of family ownership and control on the performance of the company (Charbel et al., 2013; Miller et al., 2007). This highlights the growing interest among academics and policy makers for a better understanding of the

characteristics of family businesses and the family business model. Family businesses are particularly interesting and deserve careful investigation by scholars because of their distinctive characteristics and peculiarities, which play a vital role in shaping corporate behaviour and performance.

One of the main objectives of this study is to contribute to the literature and shed light on the question of whether the impact of family ownership and control on performance differs from non-family ownership and control. Accordingly, this study relates closely to the paper of Anderson and Reeb (2003), which concluded that the question of how family ownership influences firm performance is still an empirical issue.

3.1.1 Family Firm Definitions

The family owned-firm is a global phenomenon. The majority of publicly traded firms have the status of family firm in South and East Asia, the Middle East, Africa, Western Europe and Latin America (La Porta et al. 1998; 1999; Claessens et al. 2000; Burkart et al. 2003; Al-Gamadi and Rhodes, 2015). Yet, issues still exist on how to define the family firm (Handler, 1989; Stempler, 1988). A wide variety of definitions make it difficult to carry out effective comparisons (Zahra and Sharma, 2004), and what is more, definitions are often full of ambiguities (Upton et. al., 1993). As stated by Sharma (2004) one single definition of family businesses does not exist. Therefore, the basic criteria for classifying the family firm is still not consistent in the literature (Miller et al., 2007). Handler (1989) contends that “*defining the family firm is the first and most obvious challenge facing the family business researcher*” (p.258). However, researchers have considered several factors in order to define family firms; family ownership tends to be the key issue for definitions in the literature. In addition to family ownership in the firm, family members on the board and family CEO (governance), family management and succession, all are used as components of definitions (Westhead & Cowling, 1998). Although researchers have reached an agreement that firms owned and controlled by one family or a small number of families is a family firm, others have shifted the definition of family firm to be more accurate where the founder and/or family member should hold a certain level of ownership and/or a number of family members have to be presented on the board of directors as CEO or members (Chua et al., 1999).

According to Ang et al. (2000), the idea of a family firm is a single family owning at least 50% of the company's stocks. While Faccio and Lang (2002) propose at least 20% of voting rights held by one family, Barth et al. (2005) consider control of more than 33% of the company's shares an appropriate definition. More recently, Martínez-Ferrero et al (2016) define a family firm as the family ownership more than 10% of voting either individually or in a family. On the other hand, Fahlenbrach (2009) and McConaughy et al. (1998) classify a firm as family firm if the founder and/ or descendant are CEO of the company. Differently again, Claessens et al. (2000) and Morck et al. (1988) defined family businesses as those firms where top positions are held by a family member or direct family related by blood or marriage or indirect family relationship. In addition, Gonzales et al. (2012) define a family company as a family involvement in management, ownership and control. Culasso et al (2015) define a family company as participation that is controlled by the owner of the family capital and the presence of at least one member of the family on the board of directors.

Other researchers such as Anderson and Reeb (2003) and Anderson et al. (2003) expand the boundaries of the definition by adding both ownership and family involvement dimensions. They define a firm as a family firm if a single family owns (any) stake of risk capital and their members have the ability to participate in the company's activities. Villalonga and Amit (2006) held that a family must have 5% or more of firm shares where held by the founder or descendants of the founder; in addition, the founder or one of his/her descendants should have an effective control over the company by being, for example, an officer or director. Further, governance is an essential measurement of family involvement (Chua et. al. 1999). Gomez-Mejia et al. (2001) have stated as well that in addition to 5% of family equity ownership, two or more family members should relate to the board of directors. Satio (2008) posits that a family firm is a firm where a family has the largest shareholding in the firm and the founder or descendent is CEO. Björnberg and Nicholson (2012) confirms that if the family members own the largest shareholding of the business, and more than one family member holds a top leading position *"the firm identifies itself as a family business"*. Lastly, Audretsch et al (2013) propose a firm as a family firm in the case of family ownership, family management, and family monitoring. The following table shows different definitions of family business as used by previous studies.

Table 3.1: Family Firms Definitions

Bernard (1975)	An enterprise is controlled by the members of a single family in practice.
Barnes & Hershon (1976)	Controlling ownership is rested in the hands of an individual or of the members of a single family.
Ward (1987)	A business that will be inherited by the family's next generation to manage and control.
Handler (1989)	An organisation whose major operating/voting decisions and succession plans are influenced by family members serving in management team or on the board of directors.
Donckels & Frohlich (1991)	A family should own more than 60% shares in the family-owned business.
Gallo & Sveen, (1991)	A business where a single family has total control and owns the majority of stock.
Daily & Dollinger (1993)	A family-owned firm should have two or two more family members in core management positions.
Welsch (1993)	One where ownership is concentrated, and owners or their relatives are engaged in the management process.
Tagiuri & Davis (1996)	Family businesses are organisations where two or more extended family members influence the direction of the business through the exercise of kinship ties, management roles, or ownership rights.
Fox, Nilakant & Hamilton (1996)	Family business is family-owned, i.e. the majority of the voting shares are owned by members of a single family. And in which there is either the occurrence or the anticipation that a younger family member has or will assume control of the business from an elder.
Cronqvist & Nilsson (2003)	Any public company where a family or a founder owns more than 5 percent as a family firm.
Zahra, Hayton & Salvato (2004)	The presence of both a family member with some identifiable share of the ownership of the firm and multiple generations of family members in leadership positions within that firm.
Morck & Yeung (2004)	Firms distinguished as family firms by following criteria: (1) the largest shareholders in a firm is a specific family, and (2) the stake of that family is greater than either a 10% or 20% control of the voting shares.
Pérez-González (2006)	Define firms only as family firms if the first succession into the second generation has taken place.
Maury (2006)	Define firms only as family firms if the largest controlling shareholder holding at least 10% of the voting right is family or individual.
Salvato & Melin (2008)	A family-controlled company is a public or private company in which a family (or related families) controls the largest block of shares or votes, has one or more of its members in key management positions, and members of more than one generation are actively involved within the business.

Sciascia & Mazzola (2011)	Family firms are those in which the family controls the business through involvement in ownership and management positions. Family involvement in ownership (FIO) and family involvement in management (FIM) is measured as the percentage of equity held by family members and the percentage of a firm's managers who are also family members.
Kachaner, Stalk & Bloch (2012)	In each business, a family owned a significant percentage, though not necessarily a majority, of the stock, and family members are actively both on the board and in management.

As the above table shows, much effort is put into developing a useful definition. Family and non-family firms will be separated differently in any study sample according to the definition. Therefore, definition is a critical concept in a study such as this, where the focus is a performance comparison between family and non-family companies and previously developed definitions offer a greater understanding of this. First, there is no consensus on the minimum family ownership proportion represented by family members in order to qualify as family companies. Second, with few exceptions, those definitions do not distinguish between management and governance. Third, some define family firms using succession phases, however, if the founders still manage the company without any succession plan, it is possible to debate whether it should be considered a family company. Fourth, some definitions require only family ownership or family management, while others require both ownership and management. There appear to be many differences in these definitions but at a deeper level there are more similarities, as they consider family dominance using different perspectives, including shareholding, the presence of family members in the company board, and the holding of dominant positions in the company.

Anderson & Reeb (2003) developed a definition with a combination of ownership and control and this is the adopted definition used in this study. The family firm is one where family members serve on the board of directors and/or if family members own fractional equity ownership (Anderson & Reeb, 2003). Further, this thesis uses the ownership proportion of La Porta et al (1999) and Claessens et al. (2000), of ten percent of the decision-making rights mandated by their share capital. Overall, following the approach of Anderson & Reeb (2003), Claessens et al. (2000) and La Porta et al (1999), this thesis defines a family firm as one in which an individual or two with the same family name or family members who collectively

own 10% or more of the shares and/or at least one of the family member with the same family name serve on the board of directors.

3.1.2 The Difference between Family Firms and Non-Family Firms

Recent studies that focus on the effect of family ownership on certain aspects of businesses (for examples, see Anderson, Duru, and Reeb, 2009; Bertrand et al., 2008; Chen and Nowland, 2010; De Jong & Marsili, 2015; Pérez-Luño and Nieto, 2016) highlighted the rising interest among specialists and academics in a deeper understanding of the family business model. Certainly, family firms are interesting and worthy of a thorough investigation by researchers because of their distinctive qualities and characteristics. Stern (2009) indicates that some of these qualities in family businesses may give them an edge over “normal” public firm. McVey and Draho (2005) suggest that underlying this, is that family companies are the result of combining two very different entities, namely the family and the business. As a consequence, family firms have their own specificities related to their culture and values, which play a vital part in shaping a firm’s behaviour and corporate decision-making processes. According to Barontini and Caprio (2006) and Sraer and Thesmar (2007) this argument would indicate that family businesses perform better than others. Here are some of features that make family firms distinctive. First of all, due to the involvement of the owner family in management activities, either directly or indirectly (Andres, 2008), there is a convergence between ownership and management (Miller and Breton-Miller, 2006). In other words, when shareholder and manager is the same person conflict of interest between principal and agent does not occur in a family firm, or at least, the effect is reduced. This is the opposite to public companies, where ownership is dispersed among minority shareholders and control is concentrated in the hands of managers (Jensen and Meckling, 1976). According to Anderson, Mansi, and Reeb (2003) because of the loss of the agency problem, governance in the family firm causes less conflict, so the agency cost will be less compared to other corporations. Furthermore, Martinez-Ferrero et al. (2016) argue that the family ownership also leads to stronger discipline and encourage non-family directors to carry out beneficial efforts. Second, the family’s generational vision of survival and the family participation in the establishment of the business drives family to keep control and deliver the company over to the next generation, rather than viewing the company as a product to consume during its life time. As a result of a family’s vision towards survival, family firms are more likely to enhance long-term performance at the expense of short-term

returns, since focus on short-term profits could hinder the ultimate goal of the family, which is deliver the company over to the next generations (Anderson and Reeb, 2003a). This perspective directs family owners to focus on better monitoring of management (Fama and Jensen, 1983), and families tend to invest their money more efficiently (James, 1999). Family monitoring represents family behavior in protecting family assets for better performance (Audretsch et al., 2013). Third, business reputation, family firms tend to develop a certain business image based on being a family (for example, see Chen, Chen, and Cheng, 2008; Chen, Chen, Cheng, and Shevlin, 2010). Indeed, in most cases business reputation or brands correspond with the actual family name and families care about their own name. As family members are aware that changing the family is not an option if the company name is related to the family name, they are extremely motivated to protect the firm's and the family's reputation (Block, 2010). The strong identification of family members with the firm helps build a unique family firm image, which can turn into a competitive advantage and thus support firm performance (Zellweger et al. 2012) and customer loyalty (Binz et al. 2013; Sageder et al. 2015). Finally, family businesses are more likely to use their own resources instead of outside resources to expand their business. In fact, many of the family businesses use their own resources to operate the company and expand investment at the beginning, often due to a lack of performance recorded history as younger companies (James, 1999).

However, research has highlighted some disadvantages of family ownership and control that impede business success. According to Villalonga and Amit (2006) the combination of ownership and management in the hands of family reduces the agency problem, but still, the absence of non-controlling shareholders in the board of directors can give rise to a new agency problem between family shareholders and minority shareholder that may adversely affect the firm performance. Supporting this view, Puerto (2010) note that if minority shareholders in a family business could not afford the cost of this new agency problem comparing to the classic agency conflict, family firms will face more difficulties attracting minority shareholders and expanding their investment compared with non-family firms. Further, as a result of ownership and management not being separated, family members may maximise their own interests rather than working to achieve the maximum benefit for all company shareholders. In this case, this potential defect of concentrated ownership and control in the hand of the largest shareholders indicate that family firms are not necessarily in a better position to outperform other companies.

Furthermore, the goal of family firms to deliver the firm to the family heirs does not always produce a competitive advantage. According to Enriques and Volpin (2007) and Holderness (2003) the family firm employing its heirs as chief executive officer can sometimes be harm the firm performance. More recently, these important points are developed by Liu and Subramaniam (2013), who contend that the net effect of using control mechanisms could be worse in family firms. This is because family firms may have a higher number of unqualified family directors on the board, including the presence of family member as CEO (Hu et al., 2012). In either cases, the involvement of family members on the company operations suggest that these firms are not necessarily in a better position to adopt efficient decisions from the organisation viewpoint. As a result, the increasing problem of immunisation at the company since the family members has no reason to make a self-monitoring (Bennedsen and Nielsen, 2010).

Given this scenario, the main aim in the current work is to shed some light on the impact of family ownership and participation on the company's performance. In particular, this study focuses on whether family businesses, due to their unique characteristics and peculiarities, differ from non-family businesses in terms of performance. Then, provide some explanations for the differences in performance between family and non-family businesses by examining how family control affects financial performance.

3.1.3 Empirical Studies of Family Firms

According to Rutherford et al. (2008) the influence of family control and ownership on the performance of the firm has been classified in empirical studies into positive, negative and neutral relationships. For instance, Barontini and Caprio (2006) conducted a study of a sample of 675 publicly-traded companies in 11 EU countries and found that family control improves operating performance and firm valuation. Pendey et al. (2011) investigated the influence of family ownership and control on financial performance (measured by Tobin's Q) in a sample of 131 largest family firms listed on the Bombay Stock Exchange (BSE) and found a positive relationship between family ownership and the performance of the firm. Martin-Reyna and Duran-Encalada (2012) found that family ownership influenced positively to firm performance. Che and Langlis (2015) argue that there is a positive association between the ownership of the controlling family and firm performance occurs when the controlling family

is the second largest owner, but the association is stronger when the second largest owner is a non-family member. They further argue that stronger family power is associated with higher firm performance.

Focusing on the downside of family control and ownership, Perez-Gonaflez (2006), Schulze et al. (2003), and Morck & Yeung (2003) concluded that companies owned and managed by families suffer from financial constraints, managerial entrenchment, conflict between generations and the confiscation of minority shareholders' assets, which adversely affected the performance of companies. Further, Georgiou (2010) studying a sample of 178 family and non-family firms listed on the Cyprus Stock Exchange, found a significant evidence that family firms are negatively related to firm value. Bhatt and Bhattacharya (2017) conducted a study of a sample of top-listed firms in India for the period 2002 to 2012 and found family management was not found to significantly affect firm performance as compared to that of professionally managed firms. In the subset analysis of family firms, they found that higher proportion of family ownership and family representative directors did not show any significant impact on the firm performance.

In contrast to both the positive and negative findings on family firms, Arosa et al. (2010) investigate the influence of family ownership and control on profitability (measured by ROA) in a sample of 586 small and medium size family firms from Spain and found no significant relationship between family ownership and the profitability of the firms. Klein et al. (2005) also found no association between family control and corporate performance for a sample of 263 Canadian firms. Moreover, O'Boyle et al (2012) conducted meta-analysis by summarising previous empirical results of 78 articles, reporting 95 samples with a total sample size of 80,421. They reported no relationship between family involvement and corporate financial performance. They further reported that the empirical results that explain the relationships between family ownership / involvement and corporate financial performance are highly inconsistent.

However, previous studies in family firms highlighted corporate governance as an interesting theme for different reasons (e.g. monitoring the expropriation of minority shareholders' rights). It has been suggested that corporate governance could be a key tool for competitive advantage

in family firms (Miller and Le Breton-Miller, 2006; Gedajlovic and Carney, 2010), adding a real value to the firm (Goel, et al., 2014). Further, according to Yasser (2011) the practice of good corporate governance structure influences the performance of family controlled companies significantly. His findings reveal that family-controlled companies have higher firm performance as compared to non-family controlled companies. In his study, Yasser (2011) conclude that there are significant differences between family and non-family controlled firms' performance from governance perspectives. As previously mentioned, the family firm is generated from two entities, namely the family and the business, thus a separation of ownership and management is does not necessarily exist. In addition, the interests and objectives of a family firm could be different compared to non-family firms. This implies a different structure in terms of governance might be applied in these firms (Wright et al., 2014). This is due to the appointment of family members in various governing bodies such as the board of directors and multiple roles in the business, significantly different from other types of companies and likely to alter strategic decision-making. Since each family has its own specificities, this creates heterogeneity (Lee and Yeh, 2004). Therefore, investigating corporate governance in family firms is not only a question of looking at corporate governance in one type of business structure. It must also be considered as studying the corporate governance of a firm entity controlled by a family entity.

3.2 Board of Directors and Performance

Most companies are governed by a board of directors which is an important part of corporate governance. The presence of a board of directors is one of the legal requirements for the listing of a company. A corporate board has numerous responsibilities, for example, to determine the main objective of the firm, agree on strategies and plans to achieve these objectives, develop firm policies and appoint the CEO. According to Banks (2004) a board of directors is:

“a body entrusted with power to make economic decisions affecting the well-being of investors' capital, employees' security, communities' economic health, and executives' power and perquisites”. The UK Corporate Governance Code (2012) mentioned that: *“every company should be headed by an effective board which is collectively responsible for the long term success of the company”* (2012, p.7).

Shareholders appoint a member of the board to be their representative and delegate management and control decisions to the board. According to Berle and Means (1932) the agency problem may result from decisions management and control being separated from shareholders, since the outcomes of decisions made by managers do not necessarily satisfy the interests of shareholders. Therefore, one of the main tasks of the board is to ensure the protection of shareholder interests (Pearce & Zahra 1992). In a family business, the responsibilities are similar. For instance, the development of strategies, control and technical advice, the role of arbitration or mediation among family members, networking and management discipline are all mentioned in family business literature (see, e.g., Bammens et al., 2012; Voordecker et al., 2007). In the Family Business Review Special Issue on Family Business Boards (No. 3/1988), Ward argues that the effective family firm board is one of the most important structures to maintain a company's sustainability and success (Ward, 1987). At the same time, the characteristics of family businesses have a significant impact on family business boards. The participation of family members in business activities affects long-term goals, and has an impact on the business culture, including incentive issues (Westhead & Howorth, 2006). Therefore, family participation in business can influence the composition of the board, roles, and thus influence the performance of the company.

The conceptual development of the board of directors is based on a range of corporate governance theories (Van den Heuvel et al., 2006). For example, agency theory suggests that the board of directors is responsible for monitoring the behavior of top managers' and protecting the interests of firms' stakeholders (Fama and Jensen, 1983; Jensen, 1993). The implementation of the interests of different owners, regardless of the size of their shareholdings (agency problem between different shareholders), is achieved according to Brennan (2006), through effective monitoring by the board. In addition, resources dependency theory argues that the board is an effective device for sourcing critical resources to create competitive advantage (Pfeffer and Salancik, 1987). The features of an effective board of directors and its influence in enhancing firm performance attracts wide interest amongst scholars (Mehran 1995; Ho, 2005; Bammens et al., 2012).

Prior empirical studies have examined the usefulness of board of directors, through examining the impact of various variables that relate to board of directors on firm performance, including

board size, independent directors, CEO duality, and female board members. The next sections review in more detail the theoretical and empirical studies on the relationship between these board variables and the performance of family and non-family firms. From this review and analysis, a hypotheses regarding each board variable is produced for use in this current study. Each section ends with a table summarising the conclusions of the key studies within the literature for each board variable.

3.2.1 Board Size

One of the most important governance mechanisms is board size as it indicates the participation of a board in company affairs and activities. The number of members on the board indicates the effectiveness in controlling and directing the company (Maztoul, 2014). Levrain and Van den Berghe (2007) defined board size as the total number of directors that shape the board. The board size with suitable management should encompass both the executive and independent directors (Goshi et al., 2002), since board size is widely believed to be a significant factor for governing the firm (Jensen, 1993). However, the total number of directors varies from country to country. This implies that there is no standard board size between firms internationally. A survey by Heidrick and Struggles (2007), found that France, Spain and Germany each tend to a large board size (13 to 19 directors) while the United Kingdom and Switzerland tend to have a small board size. Lipton and Lorsch (1992) suggest that the number of directors on board should be between seven and eight, where the board has more than 8 persons, it becomes less easy for members to express their thoughts and ideas. This view is supported by Jensen (1993, p, 865) who points out that *“keeping boards small can help improve their performance. When boards get beyond seven or eight people they are less likely to function effectively and are easier for the CEO to control”*.

Earlier finance and management literature asserts that board size is one of the most significant mechanisms for enhancing firm performance (for example, see Adams and Mehran, 2005; Eisenberg et al., 1998; Ghosh, 2006; Guo & Kga, 2012; Shukeri et al., 2012; Yermack, 1996). These studies are consistent with the viewpoint of agency theory that a smaller board is linked to improved firm performance. This is because the costs of coordination and the free rider problem worsens in larger boards, so owners generally prefer a smaller board and seek to reduce its size (Gertner and Kaplan, 1996). Florackis et al., (2008) claimed that small board

size is likely to be better for coordination and communication. Raheja (2005), also pointed out that increased board size reduces firm value resulting in a less effective monitoring role, because of free-riding problems. These views are opposed by Epstein et al. (2002) and Goshi et al. (2002) who suggested that a board of sixteen directors is an optimal number for large companies. Pearce and Zahra (1992) argue that larger boards are more beneficial because they can provide a broader perspective and a better route as of strategic options for the company. From a stewardship theory perspective, the number of directors on the board is relevant, since they have superior information about the operations of the firm (Nicholson & Kiel, 2003). According to Adams and Mehran (2003), multi-member boards are more appropriate for large, complex and universal institutions. However, in accordance with resource dependence theory, Pfeffer (1972) argues that larger boards help to increase firm performance through improving the effectiveness and diversity of networks, as well as increases the company's ability to navigate an unstable environment. This result is also confirmed by Goodstein et al. (1994) who stated that the diversity and effectiveness of large boards improves performance, consequently allowing a company to transcend difficult market conditions.

With respect to family businesses, Ward (1991) stated that they prefer smaller boards, since the individual commitment is subject to dispersion in larger boards. Cromie, Stephenson & Montieth (1995) propose that larger boards are not desirable for family firms, as larger boards may impede family involvement and responsibility. Bennedsen, Kongsted and Nielsen (2008) also find that family businesses achieve a much worse performance when increasing the board size to more than six. From the agency theory perspective, Navarro and Anson (2009) suggests that families may be reluctant to increase the size of the board so as to maintain control, and facilitate communication when making decisions, and thus reduce the problem of free-riding. On the other hand, Setia-Atmaja et al. (2009), consistent with the resources dependence view, claimed that the larger boards corresponding with the dominant family. This is because larger boards improve performance through family members who have valuable experience, skills and professional networks, which might provide the family business with lots of business resources.

Several studies that have been conducted on developed countries (Yermack, 1996; Adams and Mehran, 2005; Bhagat and Black, 2002; Coles, Daniel and Naveen, 2008, in the U.S.; Conyon

and Peck, 1998; Haniffa & Hudaib, 2006; Guest, 2009, in the UK; Eisenberg et al., 1998, in Finland; Mishra et al., 2006, in Norway; Bermig and Frick, 2010, in Germany; Setia-Atmaja et al., 2009, in Australia; Bozec, 2005, in Canada). Other studies, however, have focused on developing countries (see, e.g., Kumar and Singh, 2013; ZainAlabidin et al., 2009, in Indian; Liang and Li, 1999, in China; Yammeesri and Herath, 2010, in Thailand). While, very few studies addressed this relationship in the context of Arab countries (see, e.g., Emile et al., 2014, in Egypt; Al-Ghamdi and Rhodes, 2015, in Saudi Arabia; Ahmed and Hamdan, 2015, in Bahrain).

Empirically, the extent to which board size affects the quality of corporate governance and firm performance has been the subject of inconsistent findings. For example, Yermack (1996) studied the relationship between board size and firm performance, measured by Tobin's Q using 452 US large firms during the period 1984 to 1991 (8 years) after excluding utilities and financial institutions from the sample, where government regulations are applied by the boards of directors in these companies. They found a negative correlation between financial ratio (Tobin's Q) and board size. He revealed that the progressive cost will decrease if the board size decreased. Also, he finds that firms' value is much improved after using different independent variables in the equation, for example firm age, diversification, opportunities of growth and board composition. His testing did not alter the result that the effect of small boards better than large boards in terms of corporate performance. The findings of Yermack's study demonstrated that the most affected in firm value happen when the number of directors increases from small to medium in the company; this is attributed to obstacles in coordination processes (Guest, 2009). Other studies have examined the relationship board size and performance of small and medium-sized companies, such as Eisenberg et al. (1998) studied 879 Finnish firms during the period 1992 to 1994, and concluded that board size negatively affected firm profitability measured by return on assets (ROA); In addition, agency problems increase as board of directors' size increase. The findings of Yermack (1996) and Eisenberg et al. (1998) are supported by different studies (for example, see Bennedsen et al., 2008; Coles et al., 2008; O'Connell and Cramer, 2010) which emphasised that a small board is more likely to correlate with less agency costs resulting in superior performance.

Further, in a study by Bonn, Yoshikawa and Phan (2004) board size is negatively related to Japanese firms' performance, due to the practice of appointing directors on the basis of relationships with owners rather than directors with business qualifications and experience that might contribute to firm performance. However, Bonn, Yoshikawa and Phan show that board size has no significant influence on Australian firms' performance. Finally, they pointed out that the skills and knowledge of board members are more significant for the performance of companies than board size.

Previous studies (Coles et al., 2008; Haniffa and Hudaib, 2006; Kiel and Nicholson, 2003; Yammeesri and Herath, 2010) found a direct correlation between board size and firm performance, where large boards offer a wide range of skills and experience and diversity in communication, especially business communications outside the firm. In line with the resource dependency perspective, Lehn et al. (2009) argue that diversity in experience and skills on the company board increase management ability and decision-making, which, in turn, reduce agency problems and enhance firm performance. Besides, larger boards provide much greater access to the corporate external environment, which reduce the negative impact of uncertainties (Dalton et al., 1998).

Adams and Mehran (2005) studying a sample of 35 US listed banking firms during the period 1959 to 1995, found a statistically significant positive relationship between the board size and firm performance measured by Tobin's Q. In Nigeria, a study using a sample of 93 listed companies from 1996 to 1999, Sanda et al., (2005) reported a positive correlation between the board size and firm performance measured by return on equity (ROE). Their findings support the idea that larger boards provide much greater access to the corporate external environment (e.g. finance and raw materials than smaller boards. Haniffa and Hudaib (2006) also found a positive relationship between board size and performance measured by ROA. They noted that a large board with a variety of backgrounds would ensure the progress of better decisions to reduce the agency problem. Moreover, a study of Malaysian companies by ZainAlabidin et al. (2009) found a positive relationship between board size and performance and concluded that large boards can maintain and recover corporate governance in uncertain economic periods to reduce agency cost, which is consistent with other developing country studies which also concluded positive associations, such as Dwivedi & Jain (2005) in Indian. Finally, Bozec

(2005); Topak (2011) and Mangena and Chamisa (2008) documented that board size has no impact on firm performance.

There are a small number of studies that consider the effect of the board size on performance in family businesses. However, Ward, (1991) and Cromie, Stephenson & Montieth, (1995) pointed out that family firms prefer a smaller board size. Bennedsen, Kongsted and Nielsen (2008) found that family firms have a negative relationship with a board size above 5 members. A study by Ibrahim and Samad (2011) examine the impact of the board size and performance of family and non-family public listed companies in Malaysia over 7 years (1999 to 2005). They concluded that small board size positively affected family firms' performance measured by Tobin's Q, ROA and ROE. Likewise, Mishra et al. (2001) investigated the relationship between board size and performance of family firms in Norway, and found a positive correlation between small boards and performance in family businesses. The researchers found that smaller size may be an excellent control mechanism for family businesses. In contrast, Ng (2005) investigated the same relationship, and board size did not have any impact on the performance of family businesses in Hong Kong. He concluded that boards in Hong Kong are mostly controlled by members of a family who may not always have the skills and experience to improve governance.

The conclusions reached in one study by Hansson et al. (2011) goes counter to other studies. They found that board size negatively impacted on family firm performance in Finland. They pointed out that a large board is a less effective governance mechanism, and thus has a negative effect on performance. Bhatt and Bhattacharya (2017) investigated the impact of family firms on the relationship between firm performance and board characteristics in Indian firms for the period 2002 to 2012. They do not find any evidence that larger board size improves the performance in a family firm. On the other hand, Astrachan et al. (2002) argued that larger boards identify with the dominant family. This is because larger boards improve performance through family members who have valuable experience, skills and professional networks, which might provide the family business with lots of business resources, which, in turn, improves the financial performance of family firms. Pandey et al. (2011) examined the association between board size and performance using 131 of the largest family firms listed on the Bombay Stock Exchange, and concluded a positive relationship between Tobin's Q and

board size. They use the resource dependency view, most of the family firms in India are highly complex and varied, and thus they need to be a wide range of board members who have experience in various businesses maintained by the family businesses. A recent study by Azoury et al. (2015) using a sample of 40 family firms in Lebanon support the claim argued that there is a significant relationship between board size and ROA; as an indicator of financial performance. The results consistent with the conclusions of Dalton et al. (1999) and Coles et al. (2008).

Within the Jordanian context, supporting the agency theory perspective Adnan et al. (2011) and Alabdullah et al. (2014) find a significant negative relationship between board size and financial performance, indicating that larger boards have less power to constrain the opportunistic behavior of agents. Legally, in Jordan, the board size of any company, whether family or public company should not be more than thirteen and not less than 3 as specified by the Company of the Assembly, presented at the Companies Law number 22 of 1997. The different findings regarding board size, whether it has a positive or negative relation to corporate performance, do not need to be criticized since both effects are justified by the previous studies and are logically acceptable. However, the current study is more concerned with the monitoring role of the board, thus, the first view that argues that larger boards have less monitoring capacity is more appropriate than the second one. Thus it is expected that the monitoring capacity of the board's decreases as the size of board decreases. Further, larger boards have less coordination and communication, hence more free-riding problems. Thus, larger boards are expected to reach worse decisions than smaller ones. From the above discussions, the following hypothesis is proposed:

H1: There is a negative relationship between the board size and corporate performance

Table 3.1: Summary of empirical studies on the relationship between Board Size and Performance				
Authors/ Year	Country	Sample & Period	Performance Variable	Findings
Yermack (1996)	USA	452 industrial corporations (1984-1991)	Tobin's Q	Negative relationship
Barnhart & Rosenstein (1998)	USA	321 firms listed in Standard and Poor's 500 (1990)	Tobin's Q	No relationship
Adams & Mehran (2005)	USA	35 publicly traded BHCs (1986-1999)	Tobin's Q	Positive relationship
Cheng et al., (2008)	USA	350US listed firms (1984-1999)	ROA and Tobin's Q	Negative relationship
Coles et al., (2008)	USA	8,165 firm (1992–2001)	Tobin's Q and ROA	U-shaped relationship
Guest (2009)	UK	2,746firms (1981-2002)	ROA and Tobin's Q	Negative relationship
Reddy et al. (2010)	New Zealand	50 companies (1999-2007)	Tobin Q, MP and ROA	No relationship
Irina & Nadezhda (2009)	German	270 companies (2000-2006)	Tobin's Q and ROA	Negative relationship
Bermig & Frick (2010)	Germany	294 Firms (1998-2007)	Tobin's Q	Positive relationship
			ROA	Negative relationship
			Share Return	Insignificant coefficients
Millet-Reyes and Zhao (2010)	France	6, 174 non-financial companies from 28industries (2000-2004)	OCF, ROA and Tobin's Q	No relationship
Di Pietra et al., (2008)	Italy	77 companies (1992–2001)	Share price	No evidence that board size has an impact on firm value
Pandey et al. (2011)	Indian	131 largest family firms	Tobin's Q	Positive relationship.
Kumar & Singh (2013)	Indian	176 firms listed in the Bombay Stock Exchange	ROE, ROA and Tobin's Q	Negative relationship

Kyereboah-Coleman & Biekpe (2007)	Ghana	103 listed firms covering the five-year period 1997-2001	ROA and Tobin's Q	Positive relationship
Amran and Ahmad (2009)	Malaysia	896 Family and non-family firm (2000-2003)	ROA	Positive relationship
Haslindar and Fazilah (2011)	Malaysia	Family and non-family firms of public-listed firms in Burse (1999-2005)	Tobin's Q and ROA	Negative relationship with family performance.
Ibrahim and Samad (2011)	Malaysia	Family and non-family public listed companies in bursa (1999 to 2005).	Tobin's Q, ROA and ROE	Positive relationship with family performance
Topak (2011)	Turkey	122 firms (2004-2009)	ROE, ROA and Tobin's Q	No relationship
Al-Matari et al. (2012)	Saudi Arabia	135 firms listed in Saudi Stock Market in 2011.	Tobin's Q	No relationship
Che and Langli (2015)	Norway	Private Family Firms	ROA and ROE	Positive relationship

3.2.2 CEO Duality

A further corporate governance mechanism that might improve or reduce firm performance is CEO duality, the same person holds both the CEO and chairman in an organisation. According to Jensen (1993) the chairperson has several responsibilities including presiding over the meetings of the board of directors and interfering in the recruitment process, eviction, assess and compensate top managers, including the CEO. However, the duality may result in conflicts of interest, where the CEO may have incentives to reduce the boards' ability to monitor them.

Advocates of separation of the chairman and CEO base their view on agency theory and argue that the combination of the two positions in the hands of one person can lead to greater agency problems result from an ineffective monitoring of the CEO by the board (Jensen, 1993). Mallette and Fowler (1992) argue that the existence of CEO duality in a company will increase their control in general, and will limit the strength of the board. Under such circumstances, the conflict between shareholders and managers increases, therefore, duality is more likely to affect corporate performance negatively. Ehikioya (2009) argued that to guarantee the independence of the board, it is strongly recommended to divide the two positions in order to obtain effective checks and balances over the top management behaviour; in addition, OECD (2004) suggests that splitting the two positions from each other is a sign of good corporate governance. Further recommendations in the UK Combined Code note:

“There should be a clear division of responsibilities at the head of the company between the running of the board and the executive responsibility for the running of the company’s business. No one individual should have unfettered powers of decision.”
(UK Combined Code, 2006, p. 4).

According to stewardship theory, the CEOs are trustworthy and work in the best interests of shareholders (Davis et al., 1997). Therefore, stewardship theory does not focus on the monitoring of the CEO but rather on the structures that facilitate and empower the CEO, suggesting that the combined role of CEO and chairman can result in superior return to shareholders (Donaldson & Davis, 1991). In addition, CEO duality enhances the clarity and consistency of leadership within the firm, given the power and the authority are concentrated

in the same person (Donaldson & Davis, 1991). As a result, a firm will gain the advantages of strong control and unity of direction, which in turn enhances corporate performance.

CEO duality is more likely within family firms, as the families have the largest shareholding (Bartholomeusz and Tanewski, 2006; Chen et al., 2005). However, Navarro & Anson (2009) state that the main role of the board in the family business is to support managers, not to observe them, and therefore CEO duality might not necessarily be harmful. In other words, when the CEO and chairman of the board is a family member, it might reduce the severity of conflict of interests, and duality may facilitate family businesses governance. In terms of performance, some authors argue that in family businesses, where the board's main role may be more to assist managers, not monitor them, duality may not necessarily be harmful (Sacristà Navarro & Gómez Ansón, 2009). Braun and Sharma (2007) found that duality itself does not have any influence on the performance of family businesses, but the division of roles does help to resolve conflict of interest between family owners and non-family shareholders. Braun and Sharma did identify an area of danger in the relationship between duality and performance in family firms, the proportion of equity holdings of the family. When ownership is higher there is an increased possibility of wealth expropriation by the family due to the decrease in board independence (Anderson and Reeb, 2004).

The literature also suggests that the concentration of two positions (CEO and chairman) in the hands of the founder or family member may be an important advantage for a firm due to their experience, skills and good reputation, which may contribute to their business (Hillman and Dalziel, 2003). For example, Morck et al. (1988) suggested that a CEO founder is usually an expert in the field of business. Additionally, companies take advantage of business or political networks established by a CEO founder (Polsiri and Wiwattanakantang, 2004). Therefore, from the resource dependency perspective, duality may be useful. Overall, the control affected by families as large shareholders means that duality is likely to be more present in family businesses.

Empirically, the extent to which CEO duality affects the quality of corporate governance and firm performance has been the subject of inconsistent findings. For example, Rechner and Dalton (1991) examine the impact of CEO duality on performance. In a sample of 141 US

companies from 1978 to 1983, they find that companies with the CEO as the board chairman have poorer financial performance (ROA, return on investment and profit margin) as compared to those who have different people as CEO and chairman. They identified that the CEO duality creates managerial entrenchment. Also, they found that splitting the two positions may reduce agency problems and enhance performance. Other studies have examined the relationship between CEO duality and the performances of US companies, such as Brickley et al. (1997) who studied 661 large firms, and concluded that CEO duality negatively affected firm performance. Chahine and Tohme (2009) examined the impact of CEO duality on firm performance in a sample of 127 firms from the Middle East and North Africa. Their findings suggest that combining the two positions in the same person negatively affected firm performance. Their findings further suggest that splitting the two positions more strongly supports board members to act their role effectively in order to monitor opportunistic managerial behaviour. Bhagat and Bolton (2008) stated that CEO duality was statistically significant in negatively affecting performance which is supported by a range of studies (for example, see Bozec, 2005; Yammesri and Herath, 2010; O'Connell and Cramer, 2010). In a recent study conducted in the UK that include 468 firms listed on the London Stock Exchange (LSE), Veprauskaite, et al (2013) found that CEO/chairman duality impacts negatively on firms' financial performance. There are many studies in the literature which are in agreement that CEO duality is likely to be a negative influence on the decision-making process resulting in weak performance.

Nonetheless, there is plentiful evidence which contrasts to this view of CEO duality leading to weak performance. In a study by Donaldson and Davis (1991) CEO duality was positively related to US firms' performance. They argue that CEO duality is able to progress the process of decision-making, and likely to overcome organizational inertia, with top managers having greater freedom to work on their vision. Similarly, Boyd (1995) examined CEO duality influence on financial performance measured by ROI. He found that CEO duality positively affected firm performance. Differing again in their conclusions are other studies that found no association between CEO duality and firm performance (see, e.g., Daily and Dalton, 1994; Haniffa and Hudaib, 2006; Zubaidah et al., 2009).

Previous studies have investigated the relationship between CEO duality and its impact in the specific area of family firm performance with a range of results and conclusions (Braun and Sharma, 2007; Chen et al., 2005; Lam and Lee, 2008). For example, Lam and Lee (2008) examined the relationship between CEO duality and family and non-family firm performance using a sample of 128 publicly listed companies in Hong Kong. They suggest that combining the roles of the CEO and chairman in family firms provides greater opportunities for managerial entrenchment and expropriation of non-family shareholders. They found that the CEO duality negatively affects accounting performance in family firms, while positively affecting accounting performance in non-family firms. Their findings also argue that there is no relationship between CEO duality and market performance for family and non-family firms. Other studies have examined the relationship CEO duality and family firm performance in Hong Kong, such as Chen et al. (2005) using a sample of 412 publicly-listed companies during the period 1996 to 1998, and concluded that CEO duality negatively affected the family firm performance. Georgiou (2010) confirmed this findings, using a sample of 101 firms listed on the Cyprus Stock Exchange for 2002-2007. He found a positive relationship between CEO duality and firm value for firms listed on the CSE. However subgroup analysis based on the type of firm revealed that CEO duality will have a negative impact on firm value for family firms. In contrast, Braun and Sharma (2007) using a sample of 84 family controlled public firms in the US argued that CEO duality in family firms positively affected firm performance. Their results indicated that CEO duality improves strategic decisions when the CEO has more discretion in decision-making. Nevertheless, using sample of family firms listed on the industrial-product index in Bursa Malaysia during 2003–2006. Goh et al. (2014) found that a CEO-duality leadership structure has a non-significant effect on firm performance in family firms.

From this review, it can be seen that the empirical evidence about the relationship between CEO duality and firm performance is inconsistent and somewhat inconclusive. Some researchers have produced empirical support for combining of these two positions for effective decision-making (Donaldson and Davis, 1991; Boyd, 1995) while others for the splitting of these roles (Bozec, 2005; Yammeesri and Herath, 2010; O’Connell and Cramer, 2010). Studies investigating the relationship between CEO duality in the case of the performance of family firms have discovered important evidence on this board characteristic within family firms,

however here the conclusions are also somewhat contradictory (Braun and Sharma, 2007; Chen et al., 2005; Lam and Lee, 2008). Therefore, the relationship between CEO duality and performance of family and non-family firms is an open question in need of further investigation in order to explain the direction of ambiguous relationship between the CEO duality and performance of family firms compared to non-family firms.

In the context of Jordan, following the recommendations of the OECD, the 2009 Jordan Corporate Governance Code (JCGC) recommended the separation of the two positions from each other. Empirically, Alabdullah et al. (2014) reported no significant relationship between corporate performance and CEO duality in Jordanian firms. However, to the best knowledge of the researcher, the current study is the first to examine the impact of CEO-duality on family firm performance in Jordan. Therefore, based on Fama and Jensen's (1983) and Jensen's (1993) arguments, and consistent with the recommendations of the 2009 JCGC and the results of previous empirical research, the current study assumes that CEO-duality will essentially weaken the board independence and result in less effective monitoring, which may allow managers more space to opportunistically exploit their accounting discretion, whereas boards that have an independent chairman are likely to be more effective in monitoring and limiting managerial opportunism. Thus, from the above discussions, the following hypothesis is proposed:

H2: There is a negative relationship between CEO Duality and corporate performance.

Table 3.2: Summary of empirical studies on the relationship between CEO Duality and Performance

Authors/ Year	Country	Sample & Period	Performance Variable	Findings
Braun and Sharma (2007)	USA	84 family controlled public firms	Buy-and-hold market-adjusted returns	No relationship
Syriopoulos & Tsatsaronis (2012)	USA	43 shipping firms listed on NASDAQ and NYSE (2002-2008)	ROA and ROE	Negative relationship
Dekker (2013)	USA	1843 companies listed at the S&P 500 (2007 – 2011)	ROA and Tobin's Q	No relationship
Florackis (2005)	UK	962 non-financial UK listed firms (1999–2003)	Tobin's Q	Negative relationship
Ahmad et al. (2016)	UK	76 financial firms (pre-2007) and 91 firms (post-2007)	Tobin's Q	Negative relationship
Chen et al. (2005)	China	412 publicly-listed companies (1996 - 1998)	ROA	Negative relationship
Cabrera-Suárez and Martín-Santana (2015)	Spain	544 non-listed family firms	Asset turnover ratio	Positive relationship
Kowalewski et al. (2010)	Poland	217 Polish companies (1997 - 2005)	ROE and ROA	Positive relationship
Moscu (2015)	Romania	62 companies listed on the Bucharest Stock Exchange	ROA and ROE	No relationship
Cheema et al. (2013)	Pakistan	15 companies of the cement industries of Pakistan (2007 - 2011)	ROA and EPS	Negative relationship
Yasser et al. (2015)	Pakistan	100 Pakistan listed firms (2007 – 2011)	ROE, Tobin's Q and EPS	No relationship
Ujunwa, Salami & Umar (2013)	Nigeria	All companies listed in Nigerian Stock Exchange (1992 -2009)	ROA	Negative relationship
Daily and Dalyon (1994)	Kenya, Tanzania, and Uganda	All companies that are quoted at the EAC exchanges for a period 5 years	ROE, ROA and P/E ratios	No relationship
Amba (2013)	Bahrain	39 companies on the listed companies in Bahrain Bourse for three years 2010, 2011 and 2012	ROA, ROE and Assets Turnover	No relationship
Elsayed (2007)	Egypt	92 Egyptian firms (2000-2004)	Tobin's Q	No relationship

3.2.3 Independent Directors

The breakdown of various companies in the past few decades, such as WorldCom, Tyco and Arthur Andersen has sparked intense interest in corporate governance practices all over the world (Solomon & Solomon, 2010). One of the main debates in corporate governance concerns independent directors and its ability to control top management and reduce agency problems, in particular the problem of information asymmetry. The Combined Code in the UK advised a balance between non-independent and independent directors inside the board to ensure effectiveness. Nowadays, the presence of independent directors is recommended by most international corporate governance codes, since independent directors make a significant contribution to the effectiveness of monitoring and reduce agency problems. The Cadbury Report (1992) stimulated discussion on the importance of independent directors and their key responsibilities, and noted that firms “*should bring an independent judgment to bear on issues of strategy, performance and resources including key appointments and standards of conduct*” (p.12).

From the agency theory perspective, independent directors are more likely to protect shareholders against any self-serving behaviour by management and act in shareholder interest in a better way compared to non-independent directors thus preventing the eventual expropriation of shareholder wealth (Arosa et al., 2010). Hence, independent directors are expected to reduce agency costs (Anderson and Reeb, 2004; Shleifer and Vishny, 1997). Monks and Minow (2004) argue that the independent directors are very important in influencing corporate performance. According to Rhodes et al., (2000) independent directors do not have conflicting interests with shareholders due to their financial independence. Belkhir (2009) argue that the independent directors can help reduce the risk of moral hazard through their oversight role on managers, and can also alleviate the problem of information asymmetries by ensuring disclosure of a wide range of risks and related information to shareholders. This implies that (according to agency theory) there is no conflict of interest between shareholders and independent directors; consequently, effective monitoring by them is likely to decrease agency costs and increase corporate performance (Adams and Ferreira, 2007; Duchin et al., 2010; Fama, 1980). Based on this, an effective board of directors requires a higher proportion of independent directors (Fama, 1980; Jensen, 1993). However, Raheja (2005) argued that whilst independent directors are quite useful in the independent monitoring

and improving corporate performance, they do not have a specific detailed knowledge concerning the daily operations of the corporation compared with other directors. Executives' directors because of their experience and access to firm information can positively contribute to decisions, which, in turn, give them more advantages over independent directors who cannot reach such information (Nicholson and Kiel, 2007). This view is supported by Weir and Laing (2000) who considered that as independent directors normally work part-time and their knowledge of the daily operations of a company is lesser than non-independent directors they are less likely to take effective decisions that can improve firm performance.

Fama (1980) stated that a board of directors with more executive directors is more likely to approve board decisions without challenging each other at the expense of the shareholders' interests. He further stated that the presence of fewer independent directors on the board can raise the risk of collusion among executives. Research by Black et al. (2006) argued that hiring independent directors gave a positive and negative indication to the market that the company's intention is to reduce the agency problem and deal fairly with shareholders. In contrast, a few scholars argue that there is no significant correlation between the proportion of independent directors and company performance (see, for example, Ermina and Maria, 2010; Romano et al., 2012).

In addition to agency theory, which provides an explanation of a boards' composition and their roles, the resource-based theoretical perspective focuses more on the service role of the board. Pfeffer (1973) and Pfeffer & Salancik (1978) considered the board as a strategic resource to ensure the important needs of companies, as well as being responsible for coordination with other companies. From this perspective, the company's internal environment (such as capacity and resources) is necessary for competitive advantage, and this means the board can play a key role in the advisory side, in particular independent directors can provide knowledge and external expertise to the management team (Daily and Dalton, 1993; Machold et al., 2011). Basically, the function of independent directors from the resource-based view is to provide the service and resource needs demanded by senior management and not only to monitor managers (Fiegener et al., 2000). Hermalin and Weisbach (1998) also state that *“the CEO may choose an outside director who will give good advice and counsel, who can bring valuable experience and expertise to the Board”*. Moreover, independent directors can also overcome the shortage

of human resources shared among complex companies (Daily and Dalton, 1993), connecting the external and internal environments of companies (Zahra and Pearce, 1989), increase supervision and improve decision making (Huse, 1990). These factors may explain why independent directors are powerful as their personal networks assist in increasing the reputation and value of the company (Pfeffer, 1973; Pfeffer and Salancik, 1978).

Previous studies have presented evidence that independent directors can add real value to the company (Erkens et al., 2012; Fama, 1980; Jensen and Mackling, 1976; Noor and Fadzil, 2013; Mura, 2007; Muravyev et al., 2014). It is suggested that independent directors should function to mediate conflict between majority and minority shareholders and make managers more active through better monitoring, thus improving firm performance (Andres, Azofra and Lopez, 2005). Therefore, numerous scholars have strongly argued for the necessity of an effective board in family firms needing independent members (for example, see Gersick et al., 1997; Huse, 1990; Neubauer and Lank 1998; Brenes et al. 2011). Brenes et al. (2011) conducted a survey among 22 families in order to ascertain the impact from setting of a board of directors, as well as from family governance on company performance. They suggested that including non-family board members was determinant to perceived increased transparency and increased confidence in company management for family members who are not actively participating in the family business. However, family owners generally attempt to limit the extent of independent directors, with families often seeking to consolidate power themselves and obtain personal benefits from the company (Anderson and Reeb, 2004). The reasons behind this idea, suggests Ward (1991), is that families are fearful of independent directors control over the firm, not believing that outsider directors have the requisite knowledge of a firm's competitive situation. He also argues that family owners tend to more anxious and closed to new ideas and external viewpoints. According to Samara and Berbegal-Miraben (2017) argue that the presence of independent directors decreases cooperation and knowledge sharing inside the family business and eventually leads to a decrease in its performance.

Although families may seek to minimise the presence of independent directors, Anderson and Reeb (2004) document that minority shareholders in family firms desire them to be on the board to protect their interests. This can be understandable when, as Bartholomeusz and Tanewski (2006) and Setia-Atmaja et al. (2009) all suggest, family firms have less levels of

board independence compared to non-family firms. However, this was not a consensus finding, to the contrary Navarro and Anson (2009) found that the proportion of outside directors is no different between family and non-family companies. Moreover, in accordance to the resources dependence view, independent directors provide valuable guidance to senior managers in family firms, as well as bringing quality experience and skills into the firm (Dalton et al., 1999).

Empirically, the level of board independence in relation to corporate performance produced mixed results. Schellenger et al., (1989) investigated the level of outside directors on board effectiveness in the USA (sample of 792 companies). They found a positive association between the proportion of independent directors and corporate performance measured by ROA and ROE. Similarly, Brickley et al. (1994), using a sample of 247 US firms during the period 1984 to 1986, found a positive reaction in the stock price response to a firm's adoption of a higher level of independent directors on the board, and a corresponding negative association with lower independent directors on the board. Lin et al., (2009), using a sample of large companies during the period 1935 to 2000, found a positive relationship between the proportion of outside directors and cumulative abnormal returns.

Mura (2007) based on a sample of 1100 UK non-financial firms found that the proportion of outside directors on the board has a positive association on the firm's Tobin Q. His findings further suggest that the recommendations of the Cadbury Report (1992, p.12) on independent directors caused a more active board of directors leading to effective monitoring role, so protecting the interest of owners. Dahya and McConnell (2007) confirmed these findings, using a UK data sample. They found a positive relationship between independent directors and company stock price and profitability. In their study, Dahya and McConnell (2007) conclude that most independent members on a board are much more likely to exploit resistance strategies to secure shareholders wealth. Moreover, Muravyev et al., (2014) tested the relationship between outsider directors and UK firm performance, and concluded that the presence of outside directors positively impacted on performance, especially when outsider directors are also appointing in other company.

In addition, Noor and Fadzil (2013) notes that board independence is positively associated with Malaysian firms' performance. They argue that independent directors add real value to firms,

in both short and long-term performance. The results of the study by ZainAlabibin et al., (2009) also support this argument. Moreover, Khan and Awan (2012) tested the influence of independent directors on firm performance measured by ROA, ROE and Tobin's Q. Khan and Awan reported that a higher proportion of independent directors on a board will improve firm performance through their effective monitoring and contributions such as valuable advice and experience as well as their connection to the outside resources. Based on these findings, the greater percentage of independent board members is consistent with the perspectives of agency and resource dependence theories, since outsider directors provide effective monitoring and valuable contributions for management team.

Although many studies support the presence of independent directors on the board because of its positive effect on company performance, others disagree with these results, for example, a study by Yermack (1996) examined the relationship between board independence and firm performance measured by accounting performance measures, using a sample of 452 large US companies. They found a negative relationship between a more independent board of directors and ROA, and ROE, and concluded that independent directors may lack the skills or capacity to effectively monitor due to political reasons, thereby impacting on performance negatively. Agrawal and Knoeber (1996) discuss these political reasons, and stated that sometimes independent directors are appointed to satisfy environmentalists, consumer representatives or politicians. The results of the study by Agrawal and Knoeber (1996) also supported the findings of Yermack (1996). A similar pattern was documented in the study by Abdullah and Page (2009) who carried out an empirical study on the UK FTSE 350 non-financial companies reported that the proportion of independent directors appointed negatively affected Sales to Assets ratio, however, it positively influenced corporate performance when measured by ROA and Tobin's Q. Finally, a third stream of studies failed to find evidence for any relationship between independent directors and corporate performance (see, e.g. Arosa et al., 2012; Hermalin and Weisbach, 1991; Weir and Laing, 2001; Pham et al., 2008).

Previous studies also investigated the relationship between outsider directors and its impact on family firms' performance and produced mixed results (Anderson and Reeb, 2004; Huse, 1990; Gordini, 2012; Pandey et al., 2011). According to agency theory, independent directors are a tool to mitigate the severe conflicts of interest occurring between family shareholders and non-

family shareholders, leading to less agency costs, as well as more effective monitoring (De Andres et al., 2005; Arosa et al., 2010). Anderson and Reeb (2004) studied the impact of founding family ownership on firm performance, using a sample of S&P 500 companies, and they found a significant relationship between the presence of independent directors on a board and family firm performance. In addition, they also reported that independent directors are likely to alleviate conflicts between family and minority shareholders. Two reasons have been documented for this: imposing structural constraints on a firm by restricting family member involvement in sub-committees; protecting minority shareholder wealth by preventing families engaging in corrupt practices such as; unnecessary compensation, individual dividends, or unjustifiable bonuses (Anderson and Reeb, 2004). Recently, Gordini (2012) investigated the impact of independent directors on financial performance measured by ROA and ROI for a sample of 950 Italian family firms during the period 2007 to 2009, and he found a positive association between outsiders and performance, as added value and improved performance result from their assistance in obtaining external resources.

However, some researchers find no relationship between board independence in family firms with performance. For instance, Pandey et al. (2011) studied the impact of outside directors on firm performance using a sample of 131 Indian family companies, and found that board independence does not add real value to the company. They asserted that outside directors are not truly independent but have been appointed through a friendship or relationship with family members, or solely to meet the listing rules. Thus, less effective monitoring occurs (Ng, 2005). Similarly, Bhatt and Bhattacharya (2017), using a sample consists of top-listed firms in India for the period 2002 to 2012, found that having a higher proportion of independent directors does not appear to improve the performance of family firm. This finding is consistent with the results of Chen et al. (2005) in Hong Kong, Yasser (2011) in Pakistan and Ibrahim and Samad (2011) in Malaysia. Therefore, the higher proportion of independent directors on the family firm boards may not always be an indicator of effective monitoring. The balance between inside directors and outsiders is an important issue with respect to board ability to protect minority shareholder wealth from any exploitative practices by family members. Setia-Atmaja et al. (2009) stressed that independent directors have a weaker impact on family firm performance compared to non-family ones. Setia-Atmaja et al. (2009) attributes this to the family members on the board having the right to appoint and replace the outside directors, negating their

independence and therefore also the effectiveness of their monitoring, consequently impacting negatively on performance.

In short, empirical evidence about the relationship between independent directors and firm performance are inconsistent and somewhat inconclusive. Some researchers empirically support the existence of them on a board of directors for effective monitoring and obtaining new skills and experience, and thus improve firm performance (Black et al., 2006; Erkens et al., 2012; Jensen and Mackling, 1976; Lin et al., 2009) while others support the idea that less independent directors on the board are more likely to enhance performance (Yermack (1996; Agrawal and Knoeber, 1996). A few other studies investigate the relationship between independent directors and family firm performance (Erkens et al., 2012; Fama, 1980; Jensen and Mackling, 1976). Therefore, the relationship between independent directors and the performance of family and non-family firms is an open question that needs to be investigated further in order to explain the direction of ambiguous relationship between independent directors and the performance of family firms as compared to non-family firms.

In the case of Jordan, according to the Code “at least 1/3 of the board members must be non-executive, to comply with the board committees’ requirements”. Also, JCGC (2009) defined independent directors as “an employee of the Company or receiving a salary there from” (p.9). Based on Fama (1980) and Fama and Jensen’s (1983) theory concerning the importance of including more independent directors on the board of directors, the 2009 JCGC recommendations and the results of prior empirical studies; the present study assumes that independent boards provide effective monitoring and valuable contributions for management team, which in turn help to challenge managers’ opportunistic decisions and improve corporate performance in Jordan. Thus, from the above discussions, the following hypothesis is proposed:

H3: There is a positive relationship between independent directors and corporate performance.

Table 3.3: Summary of empirical studies on the relationship between Independent Directors and Performance

Authors/ Year	Country	Sample & Period	Performance Variable	Findings
Anderson and Reeb (2004)	USA	S&P 500 companies (1992-1999)	Tobin's Q	Positive relationship
Dey (2008)	USA	371 firms (2000 – 2001)	ROA and Tobin's Q	Positive relationship
Valenti et al. (2011)	USA	90 Small to Medium-sized firms.	ROA, ROE, PR ratio and market return	Negative relationship
Muravyev et al. (2014)	UK	A large sample of UK listed firms (2002-2008)	ROE, ROS, and Tobin's Q	Positive relationship
Irina and Nadezhda (2009)	German	270 companies (2000-2006)	Tobin's Q and ROA	Negative relationship
García-Ramos and García-Olalla (2014)	Spain, Portugal and Italy	87 family firms and 160 non-family firms (2003 - 2007)	Long-term sales growth	Nonlinear for both FBs and NFBs.
Gordini (2012)	Italy	950 Italian family firms (2007 - 2009)	ROA and ROI	Positive relationship
Kudlats & McDowell (2015)	Italy	Small and medium sized family firms	Subjective data	Positive relationship
Bøhren and Strøm (2010)	Norway	All non-financial firms listed on the Oslo Stock Exchange (1989- 2002)	ROA, Tobin-Q and ROS	No relationship
Borlea et al. (2017)	Romania	55 non-financial companies in 2012	Tobin's Q and ROA	No relationship
Hu et al. (2010)	China	304 firms listed on the Shanghai and Shenzhen Stock Exchange 2003.	Tobin-Q	No relationship
Shan and McIver (2011)	China	540 non-financial firms listed in Hong Kong Stock Exchange (2001-2005)	Tobin's Q	Positive relationship
Leung et al. (2014)	Hong Kong	487 Hong Kong firms (2005 and 2006)	ROA and market-adjusted annual stock return (RET)	No relationship in family firms Positive relationship in non-family firms.
Kang & Kim (2011)	Korea	1104 nonfinancial firms (2005 – 2007)	Tobin's Q	Positive relationship
Swamy (2011)	Indian	83 unlisted family owned firms (2008 - 2010)	ROA and ROE	Positive relationship

Pandey et al. (2011)	India	131 Indian family companies	Tobin's Q	No relationship
Amran and Ahmad (2011)	Malaysia	189 family companies listed on Bursa Malaysia (2003-2007)	Tobin's Q, Earnings Per Share & Operating Cash Flow	Negative relationship
Haslindar and Fazilah (2011)	Malaysia	Family and non-family ownership of public-listed firms (1999-2005)	Tobin-Q and ROE	No relationship
Masood (2011)	Malaysia	30 companies' random selection from construction and materials sectors just.	ROA and ROE	No relationship
Prabowo and Simpson (2011)	Indonesia	All industrial firms listed on the JSX as of 31 December 2003.	ROA	No relationship in family controlled firms.
Al-Manaseer et al (2012)	Jordan	15 banks (2007- 2009)	ROE, ROA, PM and EPR	Positive relationship
Al-Matari et al., (2012)	Saudi Arabia	135 firms which listed on Saudi Stock Market in 2011.	Tobin's Q	No relationship
Chahine and Safieddine, (2011)	Lebanese	749 firm-years (1992-2006)	ROA and ROE	Negative relationship

3.2.4 Female Board Member

Due to the important role of boards in corporate governance practices, particularly monitoring and advising (Bonn, Yoshikawa and Phan, 2004), different characteristics could impact firm performance, including board diversity such as gender (e.g., Ferreira, 2015). Reports show that the percentage of female members has increased over time in countries such as the USA and UK, but there are still far fewer women than men (WEU, 2002; USDOL, 2005). In spite of the large number of studies on this topic, the debate on the effects of female directors on boards is ongoing. Nowadays, gender diversity on a corporate board has attracted the attention of both scholars and regulators. In particular, the UK Corporate Governance Act, 2014, provides that:

“One of the ways in which constructive debate can be encouraged is through having sufficient diversity on the board... Diversity is as much about differences of approach and experience, and it is very important in ensuring effective engagement with key stakeholders and in order to deliver the business strategy.” (Financial Reporting Council, 2014, p. 2).

Female board members are expected to be a source of competitive advantage (Cox and Blake, 1991) being a positive influence on corporate performance by problem solving (Rose, 2007), and increasing resources such as; innovation and creativity (Carter et al., 2003). Further, women directors may also increase the company's ability to enter markets since they bring more legitimacy to companies and improve the image of the company, as well as expanding the company's understanding of the market (Campbell and Mingles-Vera, 2008). In the study by Daily, Certo, and Dalton (1999) 60% of all purchases in the US were made by women. Based on this, Daily, Certo, and Dalton argue that, for there to be an effective board of directors, female directors must be appointed, because a female member is a sensitive monitor of the market and can take a more realistic approach reflecting the consumer's point of view. In this way, there might be a significant impact on the company's performance and shareholder value (Smith et al., 2006). In this context, a report by Catalyst (2004)⁷ using a sample of 353 Fortune 500 firms over the period 1996 to 2000, show that a higher percentage of women on the board

⁷ The Catalyst is a community pressure group “non-profit organisation” encouraging the presence of women in businesses.

attained better performance compared to firms with a smaller representation of women on the board.

However, other researchers suggest that female members on boards can also lead to negative effects. For example, board members normally include men with different leadership styles (Fenwick and Neal, 2001). This might affect the communication and cooperation among team members (Cox and Blake, 1991; Earley and Mosakowski, 2000). Such situations could be more time consuming and provoke conflicts (Rose, 2007), when the company is working in a very competitive situation where the ability to communicate and promptly respond to market shock is an important matter (Smith et al., 2006). According to Pelled (1996) these behaviours could adversely affect company performance.

Under agency theory responsibilities, Carter et al. (2003) state that female directors are equivalent to outside directors. This view is supported by Francoeur et al. (2008), who point out that “female (like external shareholders, ethnic minorities, and foreigners) often bring a fresh perspective on complex issues, and can help correct informational biases in strategy formulation and problem solving”. According to Huse (2007) female members play a more vital role in the board compared to their male colleagues. In addition, some scholars argue that female board members are more likely to discuss issues (Luoma and Goodstein, 1999), asking questions, demonstrating participatory leadership and teamwork skills (Bilimoria, 2006), and supporting their companies to reach the highest ethical standards (Williams, 2003). Female board members are better at monitoring the management team and evaluating their works (Nielsen and Huse 2010), and more efficient and transparent in providing information to all company managers and shareholders (Alves et al, 2015). Based on agency theory, this argument suggests that the higher the level of monitoring and transparency of information leads to better firm performance.

From the viewpoint of resource dependency, both tangible and intangible resources such as human resources, skills and networks are a source of corporate competitive advantage (Barney, 1991). Supporters of the resource dependence view emphasise that there is a strong relationship between such resources and business performance (Harrison and Leitch, 1996; Hillman and Dalziel, 2003). According to Arfken et al. (2004), a female member usually adds complementary skills and new ideas, which makes the board more effective through enhanced

board decisions including more participative discussions. In addition to that, Ibarra (1993) stated that women directors have more diverse networks compared to male directors. Arfken et al. (2004) argued that female directors have better knowledge of certain markets and consumers than their male counterparts. Finally, female directors generally have a greater impact on the working style and board procedures which can have beneficial influence on performance results (Daily and Dalton, 2003).

The empirical assessment of female directors in family businesses is relatively new, and the results are still unclear and need further investigation. One of the issues that must be considered is how the female directors affect family firm performance and operations (Songini and Gnan, 2015). Adams and Ferreira (2009) found that the existence of female board members improved monitoring and decreased agency problems in companies. Ruigrok et al. (2007) found a significant relationship between gender diversity and family firms. They argue that females are usually nominated as directors on the basis of family ties, serving as observers and family agents in the company.

Salganicoff (1990) stated that women directors provide a distinctive contribution to management in family firms. Her conclusion further indicates that females have exceptional behaviours within family businesses such as loyalty, caring for family members, and sensitivity to satisfy the others' needs. The reason behind this conclusion is based on the study by Belenky (1986) and Gilligan (1982), who argue that females are concentrated in caring and peacekeeping behaviors. In addition, Cole, (1997) reported that women in general feel happier to work in family firms than women working in non-family firms. Cromie and O'Sullivan (1999) state that family females prefer to develop their career in family firms rather than outside.

Furthermore, Moore et al. (2005) believes that working in an environment dominated by females, and with a female supervisor will increase levels of social support, functional independence, and lower levels of depression and family conflict at work. Further, they argue that women family members' skills and experiences effectively complement the owner-manager's expertise (Moore et al., 2005). Schwartz (1992) found that women directors are more appropriate in overcoming different forms of conflicts inside family firms, including the

conflict with minority shareholders' interests, in this manner females contributing positively to performance. Additionally, resource dependency academics suggest that women directors facilitate access to vital resources for the company (Pfeffer, 1972). Finally, women family members have valuable business networks and professional skills which can positively affect family firm performance.

Empirically, the presence of female members and corporate performance has mixed results. For instance, using a sample of 500 Canadian companies from 2001 to 2004, Francoeur et al. (2008) investigated the impact of female directors on abnormal returns for companies operating in complex environments. They found that a higher percentage of female directors on the board has a significant positive effect on abnormal returns, approximately 0.17% monthly. They argued that gender diversity leads to more knowledge sources and diverse views that are desirable to develop solutions to difficult problems. Similarly, Anderson et al. (2011) stated that board diversity of female members has beneficial effects on the performance of complex companies but has a negative impact on the performance of less complex companies. Smith et al. (2006) studied the impact of women in top management on firm performance, using a sample of the 2500 largest Danish firms from 1993 to 2001. They also found that the presence of women on the board of directors and the top management team can have a significant positive influence on performance if they have higher education qualifications.

Consistent with earlier studies, Nguyen and Faff (2007) studied the impact of gender diversity on market performance measure, using a sample of the 500 largest firms listed on the Australian Stock Exchange for 2000 and 2001. They found a positive association between gender diversity on the boards and Tobin's Q. They point out that female members play a key role in maintaining board effectiveness. Vafaei et al. (2012) confirmed these findings, using a sample period 2005 to 2010 and found a positive relationship between gender diversity on boards and Tobin's Q and ROA. In Spain, Martín-Ugedo and Antonio (2014) also found a positive relationship between the percentages of female directors, whether high or low and firm value. In a recent study by Green and Homroy (2018) using a sample of 152 firms drawn from 11 western countries⁸ during the period 2004 to 2015, and found that the presence of women on corporate

⁸ The sample firms are drawn from eleven western European countries: Belgium (5), Denmark (7), France (24), Germany (21), Italy (10), Netherlands (13), Norway (3), Spain (11), Sweden (4), Switzerland (14), and the United Kingdom (30).

boards is linked to improving the company's performance, in particular when a female director is appointed to the main decision-making committees.

These results from Australia, Canada and western countries are in agreement with previous studies in the US. For example, Carter et al. (2003) and Erhardt et al. (2003) investigated the correlation between board diversity (gender) and firm performance using a sample of 638 US firms and 112 US firms respectively, and found that the presence of female members on boards positively impacts firm performance, particularly ROA, ROI and Tobin's Q. Both have argued that US companies with higher proportion of female members on their board increasing the effectiveness in monitoring and control function.

Although many studies support the presence of female directors on the board because of its positive effect on the company's performance, others do not agree on these results, for example, in a recent study, Shehata et al. (2017) tested the association between board diversity (gender and age) and firm performance measured by accounting measure, using a sample of 34,798 small and medium sized enterprises (SMEs) located in the UK for the period 2005 to 2013. They concluded that both age diversity and gender diversity have negative impact on firm ROA. Their findings also suggested that women's inclusion in boards of directors should be carefully observed and should be based on qualifications and expertise to avoid a negative impact of financial performance.

In the USA, Adams and Ferreira (2009) also investigated the impact of board diversity, including gender, on governance and performance. They used data from the S&P 500 for period 1996 to 2003, and found a negative effect of females in boardroom on market valuation and operating performance in companies that otherwise have great protection of shareholder rights (strong governance), whilst having a positive effect in companies with weak governance. They also highlighted that higher gender diversity of the board may reduce shareholder value related to additional monitoring. Similar findings were reported by prior studies in Norway and Sweden. For example, Du Rietz and Henrekson (2000) found a negative relationship between firms with women on the board and performance. Examining the Norwegian firms, Bohren and Strom (2010) concluded that firms with female board membership seem to underperform. Finally, a third stream of studies failed to find any significant relationship between female

members and corporate performance (see, e.g. Chapple and Humphrey, 2014; Farrell and Hersch, 2005; Randoy et al., 2006). Consistent with other studies, Ross (2007) found the same results, and argued that female members usually do not have a business background and were likely to follow male members on the board. Recently, Shabbir (2018) tested the relationship between women on corporate boards and firm performance measured by market-based measure (Tobin's Q), using a sample of 271 of Italian companies listed on the Milan Stock Exchange during 2012-2014. He found that the presence of women on corporate board does not influence firm performance. Shabbir (2018) argued that nearly two-third of the Italian companies are family-controlled. Therefore, companies appoint women in the board or for family reasons or just for respecting the law without taking into account their qualifications and skills.

However, the existing literature has only studied to a limited degree the impact of female members on family business boards. Based on a study of 327 Italian family firms during the period 2003 to 2007, Menozzi et al. (2015) suggested that board diversity in general is an important factor to improve decision-making and positively affect firm performance (ROA). In particular, the presence of female member on the board relates to strong economic performance of a company. Similarly, Amore et al (2014), using 2,400 median and large family-controlled firms for the period 2000 to 2010, found a positive significant relationship between female directors and the performance of family firms measured by ROA. Ruigrok et al. (2007) used data from Swiss family firms and found that female directors are closely related to the company's management through family ties. Lastly, using a sample of Portuguese firms listed on the Euronext Lisbon exchange between 2002 and 2013. Vieira (2018) suggest that an increase in the percentage of women on the board can increase family firm performance.

In short, empirical evidence about the relationship between female members and firm performance is inconsistent and somewhat inconclusive. Some researchers empirically support the presence of female directors on a board promotes problem solving and increases resources such as innovation and creativity, thus improving firm performance (Carter et al., 2003; Cox and Blake, 1991; Daily et al., 1999; Smith et al., 2006) while others support the idea that fewer female directors on a board is more likely to enhance performance, since female representation leads to less communication and cooperation with male members (Earley and Mosakowski, 2000). A few other studies investigate the relationship between female directors and family

firm performance (Amore et al., 2014; Menozzi et al., 2015). Therefore, the relationship between female directors and the performance of family and non-family firms is an open question that needs further investigation in order to explain the direction of ambiguous relationships between female directors and the performance of family firms compared to non-family firms.

In Jordan, a report of the IFC (2015) showed that among 237 public listed companies in 2012, only 52 firms have women on their board, meaning 3.54 percent of board members in Jordanian companies are women. In contrast, the percentage of female on top positions in developed countries is 23 percent and may reach 30 percent in other countries like the Philippines (World Bank, 2015). Therefore, it can be noted that female representation in Jordanian companies is still very weak. So, it is worth studying how the presence of female members on the board may contribute to better and more diverse perspectives, which, in turn, improve decision-making processes and enhance firm performance. Thus, from the above discussions, the following hypothesis is proposed:

H4: There is a positive relationship between female board member and corporate performance.

Table 3.4: Summary of empirical studies on the relationship between Female Board Member and Performance

Authors/ Year	Country	Sample & Period	Performance Variable	Findings
Carter et al. (2003)	Fortune 1,000 companies	638 companies	Tobin's Q	Positive relationship.
Catalyst (2007)	Standard & Poor's 500	520 companies (2001 – 2004)	ROS, ROIC and ROE	Positive relationship
Erhardt et al. (2003)	USA	112 US firms	ROA, ROI and Tobin's Q	Positive relationship
Adams and Ferreira (2009)	USA	Data from S&P 500 (1996 – 2003)	ROA and Tobin's Q	Negative relationship
Women on board: Help or hindrance? The Times, 11 November (2003)	UK	Analysis of FTSE 100 Index 2003	ROA and ROE	Negative relationship
Shehata et al., (2017)	UK	34,798 small- and medium-sized enterprises (2005- 2013)	ROA	Negative relationship
Nguyen and Faff (2007)	Australia	500 largest firms listed on the Australian Stock Exchange (2000 - 2001)	Tobin's Q	Positive relationship
Menozzi et al. (2015)	Italy	327 Italian family firms (2003-2007)	ROA and ROI	Positive relationship
Smith et al. (2006)	Denmark	2500 largest Danish firms (1993 – 2001)	Tobin's Q	Positive relationship
Rose (2007)	Denmark	A sample of listed Danish firms (1998–2001)	Tobin's Q	No relationship
Amore et al (2014)	Denmark	2,400 median and large family-controlled firms (2000-2010)	ROA	Positive relationship
Green and Homroy (2018)	11 western countries	177 firms (2004-2015)	ROA, ROE and MTBV	Positive relationship
Sarkar and Selarka (2015)	Indian	10,218 firm year observations (2005 – 2014)	ROA and Tobin's Q	Positive relationship

3.2.5 Family CEO

The Chief Executive Officer (CEO) has been a focus of research in finance and management studies for many years. This is not surprising as it is suggested that the CEO is the most powerful position in the management team (Linck et al., 2008) with the ability to model and set a strategy for the firm, monitor the senior executive team, and allocate capital to the firm's priorities. According to Allen (1974), CEOs are perceived as having the same strength as the board of directors, although CEOs are appointed by the board. One particular topic that has attracted significant attention is the impact of CEO on performance. Papadakis and Barwise (2002) concluded that the CEO has significant impact on the strategic decision making process and firm performance.

Previous studies have recognised the powerful status of CEOs and, due to this, researchers have considered CEOs in firms where families have the largest shareholding. Family members often have both ownership and executive management roles in the firm, which means reducing agency costs (e.g. monitoring and bonding costs) between shareholders and managers. James (1999) stated that a family manager has a broader and deeper view in the firm operations as compared to non-family manager, and thus alleviating the problems of separation of ownership and control. Morck et al. (1988) argue that a family CEO is normally an expert in the business making him/her as a valuable asset for the firm. They further argue that a firm may benefit from business and political networks created by the family CEO. Fahlenbrach (2009) concluded that family CEOs spend more on research and development, have higher capital expenditures and are more interested in mergers and acquisitions. He also suggested that family CEOs have better organisational skills and, due to their controlling shareholdings, they have better control and decision making authority.

However, Barth et al. (2005) suggested that the ownership and management of the firm by the same family may have a negative impact on the performance of the firm because they are too biased to choose managers from the family, where these managers may be ineffective and unqualified to fill managerial positions. Moreover, the involvement of a family CEO in selecting board members provides an opportunity for the CEO to become more entrenched, regardless of his/her percentage of share in the firm (Morck et al., 1988). This situation can lead to a decline in the firm's productivity (Burkart et al., 2003).

Existing literature has extensively investigated the impact of family CEOs and non-family CEOs on corporate performance, as well as CEO founders and CEO descendants with mixed results. For instance, McConaughy et al. (1998) investigated the operational efficiency and the value of U.S. family firm where CEOs are either one of the founders or their descendants. They concluded that both CEO founders and CEO descendants have more beneficial effects on the performance of the firm as compared to non-family CEOs. Adams et al. (2009) examined the ability of family CEOs to influence firm performance and decisions in a sample of 336 firms from the Fortune 500 database from 1992 to 1999; they argued that founder CEOs positively affect firm performance. They revealed that the involvement of CEOs in the board of directors has no significant impact on financial performance. Anderson and Reeb (2003) stated that the family CEO positively affects the accounting-based performance of a firm. Their findings also showed that there is a positive relationship between CEO founder and share market, but not with CEO descendants. They concluded that family CEOs have a positive impact on financial performance in old and young companies, however, according to Morck et al. (1988) a family CEO only improves market-based performance in younger companies. They argued that the status of family CEO in older companies is more a sign of entrenchment than success.

Barontini and Caprio (2006) studied the impact of founder and descendants in running the business and found a positive association between the presence of family members as CEO and firm valuation. They pointed out that descendent-controlled firms perform better than non-family firms. Villalonga and Amit (2006) also found a positive relationship between family CEOs and shareholders' value, but CEO descendants have less positive impact on shareholders' value, especially minority shareholders. Sraer and Thesmar (2007) confirm these findings, using a sample of French companies and found that firms with family CEOs perform better than publicly traded companies in terms of administration style (e.g., appointing professional labour with lower wages).

Consistent with earlier studies, Fahlenbrach (2009) reviewed the influence of family CEO's on company valuation and stock market performance, using a sample of 2,327 large publicly listed U.S. firms for the period 1992 and 1993, and found a higher valuation and improved stock market performance in companies run by family CEOs. Similarly, many studies support the

presence of family CEO in the firm because of its positive effect on the company's performance (Palia and Ravid, 2002; Polsiri and Wiwattanakantang, 2004).

At the same time, other researchers reporting empirical evidence of a negative relationship between family CEO and firm performances are in the literature. Based on a study of 438 Norwegian firms in 1996, Barth et al. (2005) found that family firms with a family CEO are less productive than non-family controlled firms. Pandey et al. (2011) used data from large family-owned listed firm in India and found that family CEOs negatively affect the financial performance of the firm. In Thailand, Bertrand et al. (2008) also investigated the impact of a family CEO, including founder's son on firm performance, and found a negative effect for family CEO on performance, the effect worsening when a founder's son is CEO and the founder was dead. This is consistent with prior evidence suggesting that family CEOs may have a more negative impact on performance in family businesses (e.g., Pérez-González, 2006; Bennedsen et al., 2007). They further argue that non-family CEOs tend to be more educated and experienced than their family counterparts, and are more able to implement professional management practices (Bennedsen et al., 2007; Sonfield and Lussier, 2009).

From the discussion above, no clear conclusion can be drawn on the impact of the family CEO on firm performance. Different studies conducted in various geographical locations have reached different results about the role of a family CEO in improved performance. For that reason, the association between family CEO and financial performance is still an open empirical issue needing further exploration.

In the Jordanian context, to the best knowledge of the researcher, this study is the first of its kind to study the impact of the family CEO on the performance of companies. However, a strong family relationship is one of the most important characteristics of Jordanian society. Family reputation is very important, and everyone in the family takes special care of their family. Reputation play an important role in the Jordanian business environment. A success of a family company increases the prestige of the family name in Jordanian society as well as the status of the CEO in the family. Therefore, family CEOs are more interested in companies success compared to non- family CEOs. Moreover, Jordanians believe more in the ability of family members to take responsibility as executive managers, given their awareness,

knowledge and experience about the nature of business as well as their strong sense of belonging to their company. However, consistent with agency theory, due to the presence of high ownership concentration in Jordanian listed firms (ROSC Jordan, 2004). Such ownership concentration could adversely affect the rights of small shareholders (Baydoun et al., 2013); thus creating a conflict of interest between small shareholders and large shareholders. This is because the large shareholders have the power to appoint their family members and relatives. The appointment of such directors could mean that they might look after the interests of large shareholders at the expense of small shareholders. In addition, favouritism is commonplace in appointments to management positions due to the influence of large shareholders (Al-Jazi, 2007). Thus, such practices can have an adverse impact on financial performance.

Therefore, the following hypothesis can be formulated:

H5: There is a positive/negative relationship between family CEO and corporate performance.

Table 3.5: Summary of empirical studies on the relationship between Family CEO and Performance				
Authors/ Year	Country	Sample & Period	Performance Variable	Findings
Morck et al. (1988)	Fortune-500 firms	371 firms (1980)	Tobin's Q	Positive relationship
Anderson and Reeb (2003)	S&P 500	2,713 firm-years (1992)	ROA and Tobin's Q	Positive relationship
Villalonga and Amit (2006)	Fortune-500 firms	508 firms (1994-2000)	ROA and Tobin's Q	Positive relationship
Adams et al. (2009)	USA	336 firms from the Fortune 500 database (1992 – 1999)	Tobin's Q and ROA	Positive relationship
Fahlenbrach (2009)	USA	2,327 large companies (1992 and 1993)	Stock Market Performance	Positive relationship
Hillier and McColgan (2009)	UK	683 UK firms, 1992-1998	ROA and share price	Negative relationship
Sraer and Thesmar (2007)	France	2,973 Observations (1994 – 2000)	ROA, ROE and Market to Book	Positive relationship
Kowalewski et al. (2010)	Poland	217 Polish companies (1997 - 2005)	ROE and ROA	Positive relationship
Barth et al. (2005)	Italy	1,555 companies (2000 – 2010)	ROA	Negative relationship
Bennedsen et al. (2007)	Denmark	5,334 CEO successions in Danish firm, 1994-2002	OROA	Negative relationship
Barontini and Caprio (2006)	11 European countries	675 publicly traded corporations (1999-2001)	Tobin's Q and ROA	Positive relationship
Pandey et al. (2011)	Indian	131 biggest family firms (2008)	Tobin's Q	Negative relationship
Kalyanaraman (2015)	Indian	288 Indian firms, 2009-2014	MTB	Negative relationship

3.3 Ownership Structure

In the past, a typical ownership structure was described as “dispersed” (Berle and Means, 1932). But more recently, firm ownership has become more concentrated (Strivens et al., 2007). According to the OECD (2017, p.11) based on World Bank data, the countries with “concentrated” ownership structures in global market capitalisation increased from 20% (1998-2002) to 34% (2013-2015) since the adoption of the Principles of Corporate Governance in 1999. From the agency perspective, Grossman and Hart (1986) argued that if the ownership structure of the company is too widespread, shareholders are less likely to monitor and control the behaviour and decisions of agents. This is because they have less motivation to do so, since the potential benefits exceed the agency costs of monitoring and as a result performance is weakened.

In contrast, Shleifer and Vishny (1986) stated that if the ownership structure of a firm is concentrated, large shareholders would contribute to the alleviation of agency problems, because they have the motivation, inspiration and ability to control managers (for instance, the common interests of all shareholders, whether small or large). In addition, Demsetz and Lehn (1985) noticed that the increased concentration of ownership, also increased the degree of benefits and costs borne by the owner himself, and thus it can be concluded that large shareholders are more likely to be energetic in corporate governance to avoid conflicting information between shareholders and managers because of their larger share in companies, as a greater risk incurred through their larger ownership. Thus, if agency costs fall it is likely that the shareholders will receive higher profits on their shares. However, concentrated ownership can also invest much greater power in those shareholders to make decisions, which will benefit them at the expense of other shareholders (La Porta et al., 1999).

The importance of major shareholders depends on the identity of the shareholders, their level of activity and participation in monitoring and control of the board of directors (Thomson and Pedersen, 2000). Holderness (2003) point out several factors which induce investors to hold significant shares in a firm, such as the benefits of having control (privately or jointly with other significant shareholders) and enjoying a large amount of profits. However, according to Frank and Mayer (1997), shareholders can be classified into different categories based on their type (for example, banks, insurance companies, pension funds and foreign investors) and/or

the proportion of ownership. In the literature, the role of institutions and foreign investors is one of the most vital factors in the corporate governance in any organisation (Claessens and Djankov, 1999). This is because the institutions shareholders and foreign investors play a key role in corporate governance, especially in reducing the agency problem and contribute to monitor and enhance corporate performance (Shin-Ping & Tsung-Hsien, 2009). This increased development and importance of such investors has not only taken place in developed countries but also in the emerging markets.

Corporations in developing countries (including Jordan) are characterised by a high concentration of ownership (OCED, 2003). In this context and based on the agency perspective, this thesis attempts to evaluate the influence of ownership concentration (large shareholders), institutional shareholders and foreign investors on the performance of Jordanian family and non-family firms listed on the Amman Stock Exchange from 2009 to 2015. Corporate governance and investor protection are lower in Jordan than in the developed countries. Therefore, we expect that the outcomes of this study contribute to the understanding of ownership structure and corporate performance in a developing country like Jordan. The following sections review the theoretical and empirical studies of the relationship between corporate ownership structure (Large shareholders, local institutional shareholder and foreign investors) and corporate performance followed by the hypotheses developed from this discussion.

3.3.1 Concentrated ownership

Concentration of ownership is one of the most important factors that may contribute to reducing the severity of some agency problems in the company. Alchian and Demsetz (1972) stated that ownership concentration has been proposed as an internal mechanism to monitor the behavior of managers by shareholders to ease intra-company conflict problems. They also argued that this mechanism is important in determining the company's objectives and the extent to which managers are disciplined. Miller and Le-Breton Miller (2006) indicated that the reduction of agency costs incurred due to ownership concentration will lead to more benefits (i.e. savings and extra resources) for a firm and increase value. Thus, an increase in the equity of ownership gives shareholders a greater incentive to monitor and control managers, which, in turn, increases attention onto raising the financial returns (Holderness, 2003).

The presence of large shareholders is likely to be better for controlling and monitoring top management as compared to ownership dispersion, where a larger number of shareholders have no incentive to monitor managers, possibly leading to poor company performance. Shleifer and Vishny (1986) assert that ownership concentration positively impacts on firm value, where large and controlling shareholders have the motivation and ability to monitor managers to achieve the common interest of control by reducing the classic owner-manager problem. In line with the impact of concentration of ownership, Holderness and Sheehan (1988) suggested that companies with large shareholders can survive over time and show that they do not perform poorly compared to counterpart companies. In such a context, better monitoring of managers translates into lower agency costs (Chen and Yur-Austin, 2007), thus contributing to performance and value creation.

Although different studies from developed and developing countries (see, e.g. McConaughy et al., 1988; Anderson and Reeb, 2003 for US companies, Maury, 2006; Barontini and Caprio, 2006 for Western countries firms, Sraer and Thesmar, 2007 for France firms, Andres, 2008 for German companies, Barth et al., 2005 for Norwegian firms, Hiraki et al., 2003 for Japanese firms, Xu and Wang, 1999 for Chinese listed firms) found that ownership structure impacts corporate performance and value in many ways depending on the country and the identity of the blockholder, concentrated ownership generally has a positive relationship with the company's performance (Denis and McConnell, 2003).

With respect to family businesses as a distinctive type of concentration ownership, the family business and corporate finance literature shows a different impact of concentration ownership on firm performance as compared to non-family firms, whereas some studies suggested several points in a favour of a positive relation between concentration ownership and firm performance in family businesses as mentioned previously in Section 3.1.2: family firms are more likely to enhance long-term non-financial goals rather than short-term financial goals. Consequently, family controlling shareholders seeking the strategic interest of their corporation (for example, securing a new market or protecting administrative independence) are able to make difficult decisions more effectively (Aguilera and Jackson, 2003). Overall, the performance of a company is likely to improve in a way that is sustainable in the long term.

Moreover, families are more concerned with their reputation; family reputation can reduce self-management interests when family members are employed in top management positions, thus facilitating the survival of the company (Denis and Denis, 1994), strengthening the long-term relationship with other stakeholders such as capital providers, customers and suppliers (McVey and Draho, 2005). Specifically, this concern with image increases the attempt of family owners to obtain lower cost debt financing, thereby reducing the conflict of interest between bondholders and shareholders (Anderson, Mansey and Reeb, 2003). In addition, this concern could also be a possible justification for a significant correlation between the ownership of the founding family and the higher quality of profits found in US companies by Ali, Chen and Radhakrishnan (2007). Similarly, Chen, Chen, Cheng and Shevlin (2010) argue that the diligence of reputation by family businesses is one of the reasons why firms have to be less aggressive taxes. Generally, reputation can lead to a better firm performance (Zellweger, Kellermanns, Eddleston, & Memili, 2012).

From the agency perspective, Jensen and Meckling (1976) argue that the higher level of ownership by insiders (for example, owner-managers in family firms) will ease agency problems due to the alignment of interest between the insiders and shareholders. This can imply a strong incentive and capability of insiders (the family members) to improve performance and share prices as they share the benefits and losses from a firm performance. The involvement of the owner family in management activities either directly or indirectly (Andres, 2008), will lead to a convergence between ownership and management (Miller and Breton-Miller, 2006). This means that conflict of interest between principal and agent does not occur in a family firm, or at least, its effect is less. According to Anderson, Mansi, and Reeb (2003) because of the loss of the agency problem, governance in the family firm causes less conflict, so the agency cost will be less compared to other corporations, thus contributing to performance and value creation. Besides this, Chen, Chen, Cheng (2008) argue that the involvement of the owner family in management activities can be useful because of their more profound knowledge of business and their particular interest in increased firm value. From another perspective, resource dependency theory also suggests that since the development of a firm's performance is subject to its ability to obtain the necessary resources, majority owners such as the family can deliver extensive advantages to their firms in terms of managerial and financial resources (Boubaker & Nguyen, 2014; Pfeffer, 1987).

Previous studies also investigate the relationship between ownership structure and its impact on performance by comparing family to non-family firms with mixed results. Anderson and Reeb (2003) showed that US family companies perform better than non-family companies. Their results inspired other scholars to develop such research in the Western European region. Maury (2006) finds that family control is positively related to firm profitability and valuations. Barontini and Caprio (2006) concluded that continental European family firms perform better than non-family ones. They also argued that this finding does not include family firms where a descendant serves as CEO, since their performance is not statistically different from other corporations. In Germany, Andres (2008) concluded that family ownership “*can be regarded as an efficient ownership structure*” (p.440) since they perform better than other corporations characterised by dispersed ownership. Sraer and Thesmar (2007) identified better performance of family firms in the French stock market concluding that all types of family firms, including founder-controlled and descendent-controlled ones, perform better than publicly held corporations. Moreover, Lins (2003) using a sample of family firms drawn from 18 emerging economies, found that ownership concentration positively impacted on firm value. He argued that companies with majority shareholders increase the effectiveness of corporate governance of companies in emerging economies.

In contrast, Mura (2007) finds a negative relationship between large shareholders and UK companies’ value. Focusing on family ownership, Barth et al. (2005) found a negative relationship between firms with family ownership and the performance of Norwegian firms. They further argued that family firms are less productive than non-family ones. Examining Swedish family firms, Cronqvist and Nilsson (2003) concluded that family ownership is negatively related to firm performance. They provided evidence that family firms face higher agency costs and lower market value compared to other corporate ownership structures. Haniffa and Hudaib (2006) indicated a strong negative correlation between the five largest blockholders and corporate performance in Malaysian companies. Finally, a third stream of studies failed to find any significant relationship between family ownership and corporate performance (see, e.g. Chen et al., 2005; Filatotchev et al., 2005).

In Jordan, like many developing countries, the ownership of firms’ shares traded in the Amman Stock Market is characterised by high ownership concentration with strong family and

government presence. According to the agency perspective, Jensen and Meckling (1976) argue that the higher level of ownership by insiders (for example, family shareholders) will ease agency problems due to the alignment of interest between the insiders and shareholders. This can imply a strong incentive and capability of insiders to improve performance and share prices as they share the benefits and losses from a firm performance. In addition, both stewardship theory and resource dependency theory suggest that these types of ownership would bring a significant positive impact on firm performance. With respect to family ownership, families have detailed inside knowledge of their business which helps make firms more profitable and facilitates the effective allocation of resources (Habbershon & Williams, 1999). Thus, from the above discussions, the following hypothesis is proposed:

H6: There is a positive relationship between concentrated ownership and corporate performance.

Table 3.6: Summary of empirical studies on the relationship between Concentrated Ownership and Performance

Authors/ Year	Country	Sample & Period	Performance Variable	Findings
Shleifer and Vishny (1986)	USA	456 of the Fortune 500 firms	Profits	Positive relationship
Mudambi & Nicosia (1998)	UK	111 Firms (1992-1994)	Rate of Share Return	Negative relationship
Siala et al. (2009)	Canada	467 non-financial firms (2002-2004)	Tobin's Q	Positive relationship
Wang and Oliver (2009)	Australia	350 firms of top 500 firms	Firm Risk	Positive relationship
Lehmann & Weigand (2000)	Germany	361 companies (1991 – 1996)	ROA and ROE	Negative relationship
Millet-Reyes and Zhao (2010)	France	174 firms (2000-2004)	OCF, ROA AND Tobin's Q	Negative relationship
Kapopoulos & Lazaretou (2007)	Greek	175 firms (2000)	Tobin's Q	Positive relationship
Earle et al. (2005)	Hungary	Firms listed on the Budapest Stock Exchange (1996–2001)	ROE	Positive relationship
Thomsen & Pedersen (2000)	European countries	435 of the largest companies	Market-to-book value of equity and ROA	Positive relationship
Singh and Gaur (2009)	China and India	813 Indian firms & 413 Chinese firms (2007)	ROA, ROE and ROS	Positive relationship
Shan and McIver (2011)	China	540 firms listed in Hong Kong Stock Exchange (2001-2005)	Tobin's Q	No relationship
Prowse (1992)	Japan	734 firms	Accounting Rate of Return; Stock Market Rate of Return	No relationship
Ehikioya (2009)	Nigeria	107 firms (1998-2002)	Tobin's Q and P/E ratio	Positive relationship
Karaca and Eksi (2012)	Turkey	50 manufacturing firms (2005-2008)	ROA	Positive relationship
Al-Hussain and Johnson (2009)	Saudi Arabia	9 Banks (2004-2009)	ROA	No relationship
Omrana et al. (2008)	Egypt, Jordan and Tunisia	304 companies from several sectors of the economy (2000-2002)	ROA, ROE and Tobin's Q	No relationship
Al-Sahafi et al. (2015)	Saudi Arabia	11 Saudi banks in 2009 and 2012	ROE and Tobin's Q	Negative relationship

3.3.2 Local institutional ownership

Institutional investors are considered as one of the most important external corporate governance mechanisms affecting corporate performance. This is because institutions have different investment goals and decision-making opportunities, as well as the power to monitor manipulations by managers and improve firm performance (Shleifer and Vishny, 1997; Bowen et al., 2008). According to Dong and Ozkan (2008), greater expertise and power of institutional investors leads to more rational decision-making by management directly through its ownership or indirectly through the trading of its shares (Gillan and Starks, 2003).

Bebchuck and Fried (2003) from the agency's perspective, argued that institutional investors as equity owners have changed from being the cause of agency problems to being the solution; they are in the best position to monitor the behaviour of managers and unify the company's objectives with shareholders. It suggested that when shareholders (including institutional investors) are not content with corporate performance, then their actions, including exercising voting rights, can control more effectively corporate board performance (Gillan and Starks, 2003). For instance, Davis (2005) argued that directors face incentives to utilise the company's capital in ways which are not in the interests of the shareholders and can lead to lower productivity. In this case, institutional investors can play a key role in minimising these problems due to their greater negotiating influence on other shareholders. As a result, they are now more involved in decision-making through new corporate governance codes to motivate them to be more active in the company. According to Smith (1996) the power of institutional investors and the improvement of controlling and monitoring they do is one characteristic of 'shareholder activism'. In addition, Solomon (2007) suggests that the role of monitor and control role played by institutional investors becomes more and more important as they increase to be very large and powerful, a significant ownership concentration. From another perspective, resource dependency theory attributes the positive influence of institutional investors on corporate performance to the substantial managerial and fiscal resources that institutional investors can deliver which considerably improve financial performance (Arouri et al, 2014).

Recently, researchers have classified institutional investors, such as insurance companies, banks, investment companies (mutual funds) and independent advisory firms into two main

categories, “pressure-sensitive” and “pressure-resistant” (Brickley et al., 1988; Elyasiani and Jia, 2010). According to Brickley et al. (1988) and Cornett et al. (2007), “pressure-resistant” institutional investors such as mutual (investment) funds, pensions fund and independent financial advisory firms are more likely to be independent from corporate managers since they deal directly with the company in which they have invested, and are therefore more willing to monitor and discipline managers than insurance companies and banks, “pressure-sensitive institutional investors” that have business relationships with firms in order to benefits from the firm in which they have invested.

Coffee (1991) suggests two important factors inspiring institutional investors to be active or passive in monitoring; “liquidity” and “control”. Indeed, institutional investors such as open-end funds are likely to pursue short-term returns on their investment to be prepared to provide liquidity (repay or transfer money) based on customer's requests. In addition, other institutional investors, such as closed-end mutual funds may be focused on the long term and accept higher risk, in the case of whether they have large shares with a discount in the value of the stock, and may therefore focus on short-term performance and ignore their controlling role. By contrast, banks and insurance companies are more attracted to long-term investment, and thus prompt them to secure adequate control and achieve firm objectives.

In the context of listed family firms, Miller et al. (2013) find that institutional investors have a positive effect on the financial performance of family firms. They argue that there is a conformity in several aspects of strategy interests between family firms and those investors, which is related to higher returns on assets. Sacristan-Navarro et al. (2011) suggests that increasing institutional ownership can benefit family businesses, as these investors may compete for control, thereby reducing the expropriation of minority shares. Moreover, Gomez-Mejia et al. (2014) suggested that increasing institutional investors such as equity shareholders debilitate the negative impact of family ownership on R&D investments, indicating that family owners are less likely to extract special benefits at the expense of innovation expenses in the presence of large institutional shareholders. All of which have significant implications for improving corporate monitoring and mitigating agency problems between family and non-family shareholders, which would lead to enhanced corporate performance.

However, some papers reveal that the combination of family shareholders and other types of shareholders may not necessarily positively affect the performance of family businesses (Crocetti et al., 2012; Sacristan-Navarro et al., 2011a). For example, Laeven and Levine (2007) argued that more than 40% of publicly-held firms in Western countries are characterised by the existence of family shareholders and an additional large non-family shareholder (such as institutional investors) owning at least 10% of the company shares. In some cases, institutional investors may offer different goals and desires compared to family shareholders, which may enhance or reduce the performance of family businesses. In line with this, Fernando, Schneible and Suh (2014), identify that principal-principal problems are more prevalent in family firms. They argue that institutional investors are better able to recognise this problem in family businesses. This can imply that family firms are less attractive to institutional investors which are an increasingly important source of capital. In other words, the conflict problems are harmful to non-family shareholders, so family businesses may not be able to access new sources of capital, especially when they need to expand their investments.

Empirically, the relationship between institutional investors and corporate performance had mixed results. In view of the efficient monitoring hypothesis (EMH)⁹, McConnel and Servaes (1990) reported a positive effect of institutional investors on firm value measured by Tobin's Q. other studies also find a positive impact of the fraction of institutional investor ownership on different performance measures, such as Al-Amarnah (2014), ROA and operating efficient ratio; Cornett et al. (2007), ROA; Thomsen and Pedersen (2000) market-to-book value of equity, and ROA; Colot and Bauweraerts (2016), ROA. Their findings confirmed the hypothesis that external large shareholders have a great incentive to monitor and control the opportunistic behavior of executives (Grossman and Hart, 1982). Conversely, Hussainey and Aljifri (2012) does not support the "active monitoring hypotheses" where institutional investors are expected to exercise their voting rights effectively in order to prevent managers from reducing their "employment risk" at the expense of the interests of shareholders. In addition, other empirical findings reported a negative relationship between blockholdings owned by institutional investors and firm performance (Barnhart and Rosentein, 1996; Lehmann & Weigand, 2000; Mudambi & Nicosia, 1998; Mura, 2007). All these studies have found

⁹The EMH argues that institutional investors are better informed and more efficiently in monitoring management activities than small shareholder can, also mitigate agency costs more efficiently (Keasey et al., 1997).

evidence consistent with conflict of interest and strategic alignment assumptions that institutional investors may have current or potential business relationships with the company, making them less willing to effectively curb management discretion. Finally, Agrawal and Knoeber (1996); Cronqvist and Nilsson (2003); Craswell et al. (1997), find no such significant relationship between institutional investors and firm performance.

In the case of Jordan, most of the major domestic institutional investors are banks, insurance companies and pension funds such as the Social Security Corporation Investment Unit. Thus, they are a good example of “pressure-sensitive” institutional investors. However, it is suggested that such investors are not capable of playing an effective monitoring role and commonly have significant business relationships with companies. In addition, most companies in Jordan have a higher concentration of ownership (OECD, 2003) and lower degree of investor protection (La Porta et al., 1999). Thus, pressure-sensitive investors are less likely to act as effective monitors than pressure-resistant investors.

From the above discussions, the following hypothesis is proposed:

H7: There is a negative relationship between local institutional investors and corporate performance

Table 3.7: Summary of empirical studies on the relationship between Institutional Ownership and Performance				
Authors/ Year	Country	Sample & Period	Performance Variable	Findings
McConnell & Servaes (1990)	USA	1,173 firm (1976) and 1,093 firms (1986)	Tobin's Q	Negative relationship
Cornett et al. (2007)	USA	676 US firm-years, 1993-2000	ROA	Positive relationship
Hughes (2005)	UK	-----	Tobin's Q, R&D stock and Dividends paid	Negative relationship
Mura et al. (2007)	UK	1100 non-financial companies	Tobin's Q	Negative relationship
Irina and Nadezhda (2009)	Germany	270 firms (2000-2006)	ROA and Tobin's Q	Positive relationship
Seifert et al., (2005)	USA, UK and Germany	-----	Tobin's Q, and Sale growth	USA- Positive Germany- No relationship UK- Negative
Colot and Bauweraert (2016)	France	Family firms which were listed on the French stock market- SBF120 (2002-2011)	ROA	Negative relationship
Sacristán-Navarro et al. (2011)	Spain	80 family firms quoted on the Spanish Electronic Market (2003-2008)	Industry-adjusted performance	No relationship
Kyereboah-Coleman (2007)	Ghana, South Africa, Nigeria and Kenya	103 firms (1997-2001)	ROA	Negative relationship
Nuryanah and Islam (2011)	Indonesia	46 companies (2002-2004)	Tobin's Q	Positive relationship
Leng (2004)	Malaysia	77 companies listed in the KL Stock Exchange (1996-1999)	ROE and Dividend pay-out	Positive relationship
Chung et al. (2008)	Korea	377 companies (1999-2005)	ROA	No relationship
Afza and Nazir (2015)	Pakistan	200 non-financial firms listed at the Karachi Stock Exchange (2005 – 2011)	ROA and Tobin's Q	Positive relationship

3.3.3 Foreign ownership

In addition, the presence of foreign investors is also important, especially in developing countries, the increased expansion of foreign investors is one of the most important factors in emerging markets since the late 19th century. This is due to limited domestic resources to finance investment (Leuz et al., 2010), which leads many emerging countries to liberalise their stock markets, and allowing foreign financiers to invest in domestic firms (Kim and Cheong, 2015). As confirmed by the international finance literature, this type of investor contributes to enhancing local investments (Henry, 2000) and boosting financial market development and liquidity (Bekaert et al., 2007). However, according to Cooper and Kaplanis (1991) and Stulz (2005) there are many factors influencing foreign investors to hold significant equity securities of domestic firms. This includes a lack of knowledge and experience in the local financial and legislative environment, differences in corporate governance and information asymmetries (Klapper and Love, 2004; Leuz et al., 2010) that may affects their asset holdings and performance, and induce them to invest in their home countries even with the globalisation of financial markets (Dahlquist and Robertsson, 2001).

Despite the obstacles to international investment, corporate characteristics seem to be important for foreign investors to invest in a company, in particular, corporate governance and profitability. For instance, Kang and Stulz (1997) studied a sample of Japanese data for sixteen years from 1975 to 1991 and recognised that foreign investors prefer to invest primarily in large firms with low leverage and high market-to-book ratios. Furthermore, they found that foreign investors tend to invest in high export ratio companies among the small-sized companies. In addition to the Kang and Stulz (1997) study, Dahlquist and Robertsson (2001) showed that foreign investors focus on large liquid firms; they further found that foreign investors prefer firms characterised by diffuse ownership. This is probably due to the possibility of exercising their shareholder rights, as well as large shareholders (e.g. local and families) having better knowledge of domestic companies that would support information-based interpretations. Based on this, Dahlquist and Robertsson (2001) concluded that asymmetric information might be the most important factor to identify corporate for foreigners. The situation, however, is the same in developing countries, Lin and Shiu (2003) sampled Korean firms, and found that foreign investors focus on high export ratio companies. Similarly, Mangena and Taurigana (2007), showed that foreign investors wishing to invest in

Zimbabwean companies look for profitability and liquidity. They further argue that these investors give more attention to corporate size, disclosure, the existence of independent directors on the corporate board, audit committee and local investors' ownership.

At the same time, studies have shown that weak corporate governance makes it difficult for companies to attract foreign investment. Giannetti and Simonov (2006) stressed that poor corporate governance in Swedish firms may be the most important barrier to foreign portfolio investors. Lang et al. (2004) using a sample of 27 developing countries data, found that the weakness of internal governance is an impediment to investment by US analysts, including companies with higher concentrated ownership such as owner-manager firms. Companies with poor corporate governance are therefore given less value by international investors. Analysing US investments in foreign firms, Bradshaw et al. (2004), find that US investors prefer to invest in markets with greater shareholder rights and protection. They also found that foreign firms that follow a strong accounting standard (such as U.S. Generally Accepted Accounting Principles) are more appropriate for U.S. investors. Overall, these studies suggest that foreign investors tend to invest in firms with good quality corporate governance¹⁰.

In the context of listed family firms, foreign investors would also avoid family firms with poor profitability and poor corporate governance because investing in such firms are not likely to reach their return on investment benchmark. Specifically, in emerging markets, where law enforcement may be weak, and thus an indication of the presence of several risks such as accounting risks, asset risk and strategic policy risk (Clayaman et al., 2011)¹¹ associated with poor corporate governance. For example, strategy risk refers to the risk that owner-managers may exercise their powers in transactions such as acquisitions and mergers that may not be in the best interests of other shareholders, but that may result in large benefits for the directors/managers whereas asset risk refers to the risk that the company's assets will be misappropriated by the controlling manager-owners (Clayaman et al., 2011).

¹⁰ Global Investor Opinion Survey on Corporate Governance conducted by McKinsey and Company (2002), show that corporate governance remains important compared to corporate financials, particularly in emerging markets. Where 61% (21%) of foreign investors believe that corporate governance as equally important to (more important than) corporate financials in assessing which companies they will invest in, whereas 18% of foreign investors believe that corporate governance as less important than corporate financial.

¹¹See Clayaman et al. (2011) for further clarification on the risks related to poor corporate governance.

Previous studies such as Beiner et al. (2006) and Brown and Caylor (2004) confirm that companies would do very well because of their high-quality of corporate governance. This, according to the Global Investor Opinion Survey conducted by McKinsey and Company (2002) concerning corporate governance in developing and developed countries showed that a majority of investors are willing to pay a higher price for a well-governed firm. This has inspired companies to reform corporate governance to compete more effectively with other companies to attract foreign investors. In other words, when companies exercise good corporate governance, this will result in better results for companies and investors, for example, to attract foreign investors from developed countries.

Researchers have shown that foreign investors play an important role in good corporate governance. D'Souza et al. (2005) stressed that foreigners are better in monitoring and controlling the firm in terms of less of conflict of interest between them. Young et al. (2008) stated that the presence of foreign investors is an effective part of governance improvement in emerging economies. They also argue that foreign investors are able to monitor corporations in a better way than domestic ones because they are "*outside the domestic social networks from which the institutional norms of behaviour are generated, and they are therefore more likely to push for transparent deals*" (Young et al., 2008, p.212). Additionally, their presence also facilitates those firms to access superior technical, managerial and financial resources (Chibber and Majumdar, 1999). Consequently, they may use their ownership stakes as a way to improve the company performance and add real value to the company through monitoring of the owner-managers.

It is possible to find further evidence that foreign investors are likely to boost corporate performance. For example, Smith et al. (1997); Oxelheim and Randoy (2003); Sulong and Nor (2010); Taufil et al. (2013); Mishra (2014) and Phung and Mishra (2016) found that firm performance is positively associated with foreign ownership. They reported that foreign investors are better monitored and have access to financial resources and professional talent. Mitton (2002) concluded a positive association between outside ownership and firm performance in emerging markets, which means that the foreign investors act as external governance agents. By investigating the impact of foreign institutional investors on the firm

valuation for 27 countries around the world, Ferreira and Matos (2008) found that firms with higher levels of foreign ownership have higher firm valuations.

Using a comprehensive data set of equity holdings from 23 developed countries Aggarwal et al. (2011) documented that corporate governance is improved related to the presence of foreign institutional investors, arguing that foreign ownership can eliminating weak performance executives from management. The results of the study confirmed the Shleifer and Vishny (1986) conclusion, who had documented that such outside ownership can increase the effectiveness of the monitoring managerial behavior and therefore positively influencing firm performance. It is suggested that foreign investors are more likely to prompt changes in corporate governance practices than local institutions (Gillan and Starks, 2003). In general, a survey conducted by Djankov and Murrell (2002) reported that most studies on ownership structures and performance relationship in different markets suggested that foreign ownership is effective from the point of view of institutional restructuring and productivity improvement. However, Wiwattanakantang (2001) demonstrate two problems facing foreign institutional investors to boost firm performance and add real value to the firm. First, the location of the company will present a difficulty for them to exercise control over managers. Second, a majority of companies with foreign controlling shareholders managed by professional managers do not have any stake in the company. Regarding family firms, Singapurwoko (2013) examined the impact of ownership structure on performance using a sample of family firms listed on the Indonesian stock exchange during the period 2010 to 2014, and documented results supporting the positive relationship between foreign ownership and family firm performance, arguing that family owners believed that foreign institutional investors provide far more benefits than local investors.

Indeed, a firm that is able to maximise their shareholders and attract foreign investors through good corporate governance is a positive indicator of effective control and good profitability, which again, in turn, increases demand for its shares and supports the company's value (Choi et al., 2012).

In Jordan, several distinctive feature attract international investors to buy shares of companies listed on the Amman Stock Exchange; a secure trading environment supported by the stability

of the country, a solid financial structure, advanced monetary and fiscal policies, foreign and domestic investment law favourable to foreign investors (Marashdeh, 2014, p.73). According to the OECD (2006) Jordan is considered to have one of the highest levels of foreign investment of market capital in the world. In 1995, Jordan has liberalised the Amman stock market, allowing international investors to invest directly in the equity securities of Jordanian firms. This resulted in raising the percentage of non-Jordanian ownership from 38.51 in 2001 to 49.50 in 2016. This increase indicates a positive sign of an effective control and good profitability that foreign investors prefer.

Based on these arguments, the current study is more concerned with the monitoring role of foreign investors. Khanna and Palepu (1999) stated that emerging countries are becoming more integrated into the global economy. Thus, foreign investors play a valuable supervisory role in management. Therefore this study will examine the effect of non-Jordanian investors on the non-financial firms that listed in Amman Stock Market for the period 2009-2015.

From the above discussions, the following hypothesis is proposed:

H8: There is a positive relationship between foreign ownership and corporate performance

Table 3.8: Summary of empirical studies on the relationship between Foreign Ownership and Performance

Authors/ Year	Country	Sample & Period	Performance Variable	Findings
Chari et al. (2012)	USA	U.S. firms (1980-2006)	ROA	Positive relationship
Viet (2013)	Vietnam	407 nonfinancial listed firms (2006-2010)	ROA, ROE and Tobin's Q	Positive relationship
Millet-Reyes and Zhao (2010)	France	174 non-financial firms (2000-2004)	OCF, ROA and Tobin's Q	No relationship
Filatotchev et al. (2007)	Poland and Hungary	500 largest companies in Poland & 250 largest companies in Hungary	ROA and ROS	Positive relationship
Mihai and Mihai (2014)	Romania	261 companies listed on Bucharest Stock Exchange	ROA, ROE and ROS	No relationship
Shan and Mclver (2011)	China	540 companies listed in Hong Kong Stock Exchange (2001-2005)	Tobin's Q	No relationship
Wang and Wang (2015)	China	All state-owned manufacturing and private manufacturing firms	Productivity, Leverage ratio, Liquidity ratio and Export share	No relationship
Sueyoshi et al. (2010)	Japan	270 leading firms in manufacturing industry (1999-2006)	Operational performance	Positive relationship
Douma et al. (2006)	India	1,005 firms (1999-2000)	ROA and Tobin's Q	Positive relationship
Singapurwoko (2015)	Indonesia	271 family firms (2010-2014)	ROA	Positive relationship
Gurbuz and Aybars (2010)	Turkey	205 companies (2005-2007)	EBITTA and ROA	Positive relationship
Al-Manaseer et al. (2012)	Jordan	15 banks (2007-2010)	ROA, ROE, PM and EPR	Positive relationship
Abdallah and Ismail (2017)	Abu Dhabi, Bahrain, Doha, Dubai, Kuwait, Oman and Saudi Arabia	581 companies listed in the stock exchanges of the GCC countries	ROA, ROE and Tobin's Q	Positive relationship
Shrivastav and Kalsie (2017)	India	145 non-financial NSE listed companies (2008-2012)	ROA and ROE	Positive relationship
Mardnly et al. (2018)	Syria	firms listed at Damascus Securities Exchange (DSE) for the period between 2011 and 2015	ROA and EPS	Positive relationship

3.4 Corporate Performance Measures

Shareholder wealth is based on corporate performance. The key objectives of corporate governance are known to improve firm performance in the short and long term in order to increase firm value and maximise the wealth of shareholders. Corporate performance measures are used by managers and shareholders as an indicator of monitoring and control that meets company's goals (Eccles, 2012). A wide range of performance measures have made it difficult for investors and researchers to choose suitable measures. Thus, it is necessary to clarify the differences between the types of corporate performance measures to select appropriate and relevant performance indicators that can provide rich conclusions for this thesis.

Corporate performance measures can be categorised into three groups: *corporate financial performance*, which basically reflects the financial gains and the situation of the firm through its capacity to increase shareholder wealth and firm value; *corporate effectiveness*, which reflects the company's non-financial performance, and; *operational performance*, which comprises the company's financial and non-financial performance. However, most existing studies that examine the effect of corporate governance on performance have focused on corporate financial performance when investigating corporate governance mechanisms¹². Financial performance can be divided into two main categories namely; accounting-based measures, for example, ROA (Yermack, 1996; Gompers et al., 2003; Haniffa and Hudaib, 2006; Guest et al., 2008; Abdallah and Ismail, 2017) and market-based measures, for example, Tobin's Q (Brav et al. 2008; Ehikioya, 2009; Renders et al., 2010; Christensen et al., 2013).

According to Haniffa and Hudaib (2006), there is no consensus in the literature on a specific measure as the best proxy for financial performance. They argue that both types of measure have their own strengths and weaknesses. It is suggested that using accounting based financial performance measures and market-based measures together can avoid inconsistencies in establishing a clear relationship between corporate governance mechanisms and corporate performance (Bocean and Barbu, 2005). On one hand, accounting-based measures consider the

¹² Using financial performance as corporate performance measure can be motivated by several reasons, among others; the rapid development of information technology and online resources made it easy for investors and researchers to access to financial reports. In addition, improving the quality of financial reports in term of disclosure and transparency of financial statements and corporate information provide investors and researchers sufficient data (Chbib, 2015, p.108).

current financial performance of the firm and reveal the significant impact of corporate governance from the director perspective. On the other hand, market-based measures attempt to evaluate the potential performance of the firm and show the impact of corporate governance from the investor perspective (Daily et al., 2003); however, according to Euske et al. (1993) accounting based measures such as ROA and ROE suffer from some limitations, for example, those ratios are historical measures and they do not provide adequate indication of long term and strategic performance. While, some companies make very complex strategic decisions requiring long-term performance indicators. One of the most frequently used financial performance measures is Tobin's Q, which includes elements of long-term performance.

As mentioned above, most of the existing studies examining the effect of corporate governance on performance have focused on a corporate financial performance. Table 3.3 shows the types of financial performance measures used in some studies. Researchers examining the impact of corporate governance on corporate performance used accounting based financial performance as well as market-based measures to examine the long-term performance and the influence of governance mechanisms on firm performance. For instance, using financial performance measures, Christensen et al. (2013) argue that accounting based measures provide indications of the increase in shareholder wealth. Further, Tobin's Q, as mentioned previously, is a market valuation of the company. Therefore, accounting based financial performance measures and market-based measures, whilst having their disadvantages, remain the most widely used and most satisfactory methods of measuring corporate performance.

Table 3.9: Studies on corporate governance and firm performance

Author/s and Year	Subject	Performance Measures Used
Bhagat and Bolton (2008)	Corporate governance and firm performance	ROA, Stock Return and Tobin's Q
Abdallah and Ismail (2017)	Corporate governance practices, ownership structure, and corporate performance in the GCC countries	ROA, ROE and Tobin's Q
Ducassy and Guyot (2017)	Complex ownership structures, corporate governance and firm performance: The French context.	Tobin's Q

Christensen et al. (2013)	Corporate governance recommendations and performance of small listed companies	ROA and Tobin's Q
Renders et al. (2010)	Corporate-governance ratings and company performance	Tobin's Q, ROA and ROE
Al-Ghamdi and Rhodes (2015)	Family Ownership, Corporate Governance and Performance: Evidence from Saudi Arabia	Tobin's Q and ROA
Lam and Lee (2012)	family ownership, board committees and firm performance: evidence from Hong Kong	ROA, ROE, ROCE, MTBV

3.5 Gaps identified in the literature review

The review of relevant literature suggests mixed results with regard to the relationship between corporate governance practices and corporate performance in both developed and emerging countries. It has been given many explanations for the reason that would explain the diversity of results across the previous corporate governance studies. Here are some of explanations that make the inconsistencies in the findings of previous studies. First of all, due to several factors include company law, capital markets, managerial talent and capital structure in the company, there is a difference between the results of previous studies (Baysinger and Butler, 1985; Rashid et al., 2010). Further, In addition, variations in the findings could also be caused by differences in ownership structure among countries (Lawrence and Stapledon, 1999). For instance, the combination of two positions (CEO and chairman) in the hand of same person are expected to be less effective in a company with a high level of dispersion ownership. While, it is expected to be more effective in a company with a high concentration ownership. In addition, Zahra and Pearce (1989) pointed to other factors that could lead to these mixed results, including contextual factors (e.g., company strategy and organizational life cycle), directors' interaction with company decisions and the nature of company control.

Secondly, Koerniadi and Tourani-Rad (2012) noted that the conflicting results suggest that effective corporate governance practices are not universal. They also attribute the diversity of these findings to differences in corporate characteristics and market structure, which have a direct impact on corporate governance practices. Along the same line, Al-Ajmi et al. (2009) argue that the differences in the institutional environments of the countries also leads to these

mixed results. Consequently, the outcomes from a particular context cannot necessarily be generalized to other contexts with different settings. Thirdly, investigating different samples of firms over different time periods, and using different measures and explanatory variables might also affect the conclusions of these studies. According to Gani and Jermias (2006), this discrepancy in previous results might arise from differences in the performance measures used. It also pointed out that different methods of analysis have resulted in different findings (Harris and Raviv, 1991).

Finally, corporate governance practices have been reviewed internationally, mainly in the developed countries. Also, corporate governance has been investigated in developing countries and emerging markets. At the same time, however, the effect of corporate governance on firm performance remains comparatively under-researched in Arab countries and in particular, Jordan. The Jordanian business environment has unique features in terms of culture, religion and ownership structure, which differ to a great extent from other countries. These features are expected to have a direct influence on corporate governance practices in Jordanian firms, and therefore the conclusions of previous studies conducted in developed or developing countries cannot be generalized to the Jordanian corporate context. For example, in Jordan, a significant number of firms have been characterized by concentrated ownership (generally, family-owned firms), and it is common for family members to have a great effect upon management, either through the membership of the board of directors or through controlling top management positions (OECD, 2003). La Porta et al. (1998) argue that the primary conflict in a firm owned by relatively few large shareholders is between the majority and minority shareholders because of the potential for the former to expropriate wealth from the latter. However, there has been a lack of investigation into the performance of Jordanian family firms from a governance perspective.

A review of previous studies of corporate governance in Jordan reveals a number of gaps: First, almost all previous studies rely only on agency theory for their analysis of corporate governance issues. However, as discussed in Chapter Two, agency theory alone seems to be inadequate to examine corporate governance practices in the Jordanian business environment due to a number of factors including culture and ownership structure. In fact, most of the literature on corporate governance in Jordan the family firm as a type of concentrated

ownership has received almost no attention. Secondly, most of the extant studies use noticeably smaller sample sizes and a single year of cross-sectional data, which limit the generalizability of their findings. In addition, most previous studies investigate sample periods that are either before or in the first few years of the implementation of the JCGC in Jordan. Given that most Jordanian firms did not comply with the JCGC until 2009 when they became “Comply or explain”, the findings of these studies may not reflect the real effects of these codes on Jordanian firms’ performance. Thirdly, most of these studies use either a single performance measure, which may fail to provide a complete picture of the impact of corporate governance on firm performance. Fourthly, there is a paucity of studies that investigate the impact of some board characteristics such as female board member and family CEO, despite the presence of these characteristics in Jordanian firms. Finally, there is little attention drawn on the impact of ownership structure on Jordanian firms’ performance, especially local institutional and foreign ownership.

Given the distinctiveness of the Jordanian corporate environment and the limitations of previous studies, this study aims to fill some key gaps in the corporate governance literature from the Jordanian context. The study seeks to investigate the impact of board of director characteristics and ownership structure on Jordanian family and non-family firms’ performance. Given the institutional characteristics of Jordanian firms, the impact of board of directors on corporate performance is examined focusing on five characteristics of the board of directors: board size, CEO duality, independent directors, female board member and family CEO. Ownership structure is also investigated in this study to determine its impacts on corporate performance. Different types of ownership are examined including ownership concentration, local institutional and foreign ownership. Regarding the sample, the study uses a large sample size that includes all non-financial listed firms on the Amman Stock Exchange over a period of seven years between 2009 and 2015. To measure firm performance, multiple performance measures including both accounting-based and market-based measures are used.

3.6 Summary

The review of literature showed that most corporate governance studies are concentrated in developed countries and that there is an urgent need to conduct studies on corporate governance and the performance of companies in developing countries. Accordingly, this thesis will

address this issue in the Arab region (Jordan), in an attempt to develop this area within the literature. Furthermore, the predominance of family businesses and the importance of corporate governance to family firms, globally and in developing countries is makes it important for empirical studies and theoretical developments in this field.

The chapter began with a definitions of family firms. It is emphasized that there is no consensus on the minimum family ownership percentage represented by family members in order to qualify as family companies. Different definitions from the literature are then presented and discussed. The next section explored the advantages and disadvantages of family business from theoretical perspectives, as found in the literature. The review then continued with empirical studies that compare family firms and non-family firms in their performance.

This chapter also reviewed and explicated the literature that is directly linked and applied to the development of the hypotheses. The discussions are directed towards the influence of board of directors and ownership structure, and their intertwined influence on the performance of family and non-family firms. Eight sets of hypotheses (H1 to H8) are developed based on the arguments from the literature pertaining to the major themes in the study, namely; board of directors (including a board size, CEO-duality, independent directors), Family CEO and ownership structure (including a concentrated ownership, local institutional investors and foreign ownership). Hypotheses are introduced and stated sequentially as the review of literature progresses.

However, the empirical studies related on board of directors that can be summarised from this chapter are mixed, highlighting the need for further research on these relationships. In addition, ownership structure (concentrated, local ownership and foreign ownership) has been identified to be internal mechanisms to reduce agency costs and thus enhance corporate performance. In short, previous studies have found that some mechanisms do not work as predicted by agency theory, and the relationship between governance mechanisms and company performance is more complex. Although we can assume that a relationship exists among governance variables, not all of them are related to higher firm performance.

The following chapter presents an overview of Jordan in order to provide insight into the background of the Jordan, including its economic environment, monitoring bodies, and general description about corporate governance and family firms in Jordan.

Chapter Four: Overview of Jordan

4.0. Introduction

This chapter provides an overview of Jordan where the empirical study of this research takes place. The aim is to offer an overview of the Jordanian environment through an understanding of the economic situation, financial market, corporate governance and ownership structures. An understanding of these aspects of Jordan is essential in showing how the Jordanian environment is different from other developed countries. Finally, family-owned businesses in Jordan are discussed and conclusions relevant to this research offered.

4.1. Background

Jordan¹³ is an Asian country, the 112th largest country in the world. With a population of 9.5 million according to the 2016 census, the nation has a population density of 73 people per square kilometer.

Figure 4.1 Map of Jordan



Jordan shares its borders with four Middle Eastern countries. Iraq, Syria, Saudi Arabia and the territories of the Palestinian National Authority. The strategic geography of the country gives it an important role to play as a conduit for trade and communications, connecting East and

¹³ It is also called The Hashemite Kingdom of Jordan.

West, as well as the North and South (UNFPA, 2014). As shown in Figure 4.1, Jordan is strategically located at the confluence of Europe, Asia and Africa, with an area of 89,342 square kilometers. There is a variety of landscapes that range from hills and mountains in the geographic center of Jordan to the plains of the Badia that extend eastward towards Saudi Arabia. The Jordan River, which flows through the fertile Rift Valley, forms the western border of Jordan and ends at the Dead Sea. The Dead Sea is located at the lowest point on Earth, 400 meters below sea level. To the south, Aqaba port of Jordan provides a gateway to the Red Sea (Jordan News Agency, 2016). The local currency is the Jordanian dinar, and JD 1.09 equivalent to one UK pound (May 2017). The official language in Jordan is Arabic, while English is used as a commercial language.

In terms of resources, Jordan is ranked the fourth poorest nation in Asia (Mryyan, 2014). According to the central bank of Jordan (2015), a significant proportion of the country's income comes from,

- Taxes (represent 65% of the overall income)
- Tourism
- Foreign aid including contributions through bilateral aid, project aid, etc.
- Natural resources (e.g. Phosphate, Potash and Cement) and they are limited.
- Funds from education and medical services provided to other Arab countries
- Overseas remittances and highly skilled workers: Jordanian workers have earned a good reputation as a skilled, qualified and well-educated workforce. Through working in other countries either as employees or by opening branches to existing local firms, Jordanians contribute to the local economy by injecting funds into local companies. Moreover, the competitive cost of labour in Jordan makes Jordanians a perfect labour force for future businesses and potential investment projects.

In Jordan, 70% of GDP comes from service and industry sectors that equally contribute to 75% of the total jobs in Jordan. Jordan is faced with high rates of unemployment which has led to high levels of poverty, inflation, and large budget deficit. However, the Jordanian government has attempted measures to tackle these economic challenges by introducing a budgetary supplement and economic relief packages to improve those living in poverty. Jordan has an open economy, a phenomenon that has made it politically vulnerable while remaining volatile

both socially and economically (Mryyan, 2014). Table 4.1 reveals the Jordanian economic indicators from 2009 to 2017.

Table 4.1: Jordanian Economic Indicators, 2009 – 2017

Year	Gross Domestic Product (GDP/JD)	Inflation (%)	Unemployment	Exports (Million JD)	Imports (Million JD)
2009	17178.8	-0.7	12.9	6,906.3	11,685.6
2010	18609.6	4.8	12.5	8,280.6	12,951.4
2011	20288.8	4.2	12.3	8,879.5	15,123.8
2012	21689.6	4.5	12.2	9,308.4	16,312.6
2013	23611.2	4.8	12.6	9,288.9	17,162.2
2014	25437.1	2.9	11.9	10,232.0	17,739.4
2015	26637.4	0.88-	13.1	9,189.0	16,112.9
2016	27444.8	-0.5	15.8	8,751.9	15,416.9
2017	28448.2	2.3	18.3	9,137.2	16,233.5

Source: Department of Statistics, Statistical Yearbook of Jordan (2017).

The Jordanian economy witnessed a dynamic privatisation plan and a rapid integration into the world economy evidenced by Jordan's accession to the WTO, and the signing of both the Free Trade Area Agreement with the United States and the Partnership Agreement with the European Union. The country is also a member of the Greater Arab Free Trade Area (GAFTA) and the Agadir Process, and since 2008 has concluded a variety of free trade agreements with a number of other countries. In 2010, Jordan signed an agreement creating a free trade area with Turkey, Syria, and Lebanon that afterward had to be cancelled because of the inception of the Syrian civil war and the disruption in Turkish-Syrian relations (BTI, 2014).

The Economy in Jordan is mainly service oriented. The services sector comprises seven subsectors; financial services, trade, transportation, communication, tourism, construction, and education, and contributes 81% to GDP and employs about two-thirds of the workforce. The remaining 19% is contributed by the industrial sector (CBJ, 2016). Jordan began the rapid implementation of a series of stabilisation and structural adjustment programs aimed at enhancing economic growth and reducing macroeconomic imbalances. The strategy focuses on export expansion through competitiveness, minimising government intervention in the economy to give way for market forces to shape the future of Jordan. Also, integrating the private sector into the industrial policy-making framework and facilitating a private sector-led

growth, as the private sector in Jordan has been identified as the main engine of economic growth. Moreover, a thorough reform process took place to create a favourable business environment. A range of legislation concerning international investor protection has been enacted, the banking system has been strengthened and attractive tax incentives and custom duty exemptions have been offered. Such a climate, as well as incentive packages provided to investors by the government, Jordan became one of the favoured investment destinations in the Middle East (Jaafar and El-Shawa, 2009). In 2011, Jordan went through its own version of “The Arab Spring”. Fortunately, the country was able to protect its political stability whereas other countries suffered significant violent conflict. Despite all the mayhem in the region, the government worked on their reforms and labeled them as “The Need for The King and The Citizens”, achieving remarkable success in providing a stable financial environment for both local and foreign investors. This political stability makes Jordan an attractive place in the region for the reception of investments and funds from various countries, especially investors leaving countries experiencing violent armed conflict, such as the a civil war in Syria or countries that are about to witness war such as Yemen and Libya, or the lengthy wars and fragmentation experienced in Iraq.

The main obstacles to Jordan's economy are the very limited natural resources, minimal water, limited agricultural land and regional instability. In the last few years Jordan's economic growth has slowed, averaging around 2.5%. This is largely attributed to a decrease in tourist activity due to regional turmoil, increased military expenditure for border protection and maintaining civil security, electrical company debts due to attacks on the Egyptian pipeline, accumulated interests from loans, the collapse of trade with Iraq and Syria, and increased expenses from hosting 1.4 million Syrian refugees. All of this has contributed to the swelling of Jordan's public debt, which reached 95% of GDP in 2016. The regional situation has made Jordan increasingly reliant on foreign aid. According to the World Bank, Syrian refugees have cost Jordan more than \$2.5 billion a year, amounting to 6% of GDP and 25% of the government's annual revenue (Malkawi, 2016). Foreign aid covers only a small part of these costs, 63% of the total costs is covered by Jordan (The Jordan Times, 2015). As a result, the ratio of external debt to GDP has increased from 60.86% in 2011 to 70.37% in 2016 (Jordan Investment Commission, 2017). They report that the Amman Stock Exchange has witnessed significant decreases in the number

of listed companies, trading volumes and market capitalisation in recent years. Table 4.2 shows the main ASE indicators over the period 2009 to 2017.

Table 4.2: Amman Stock Exchange Indictors, 2009-2015

Year	Listed domestic companies, total*	Market capitalization of listed companies (JD Million)	Turnover ratio (%)	Stock traded, total value (JD Million)
2009	272	22,602	91.3	9,665.3
2010	277	21,892	102.2	6,690.0
2011	247	19,299	58.2	2,850.2
2012	243	19,161	33.9	1,978.8
2013	240	18,233	38.0	3,027.3
2014	236	18,082	32.8	2,263.4
2015	228	17,984	37.3	3,417.1
2016	224	17,339	27.2	2,329.5
2017	194	16,962	25.7	2,926.2

Source: Amman Stock Exchange, Key Statistics of the ASE (2017)

4.2 The Jordanian Capital Market

The Jordanian capital market is driven by three distinct independent bodies namely; the Jordan Security Commission (JSC), the Amman Stock Exchange (ASE), and the Securities Depository Centre (SDC). Since the 1990s, the regulatory environment has undergone a series of important changes, especially with the creation of the ASE, JSC, and SDC. Based on Securities law, these three bodies are now responsible for monitoring, regulating and supervising all the listed companies in the ASE. The Accounting and Auditing standard of 2004, Securities Law of 2002, and the Instructions of Issuing Companies Disclosure strengthened the effect of these three bodies (Mallin, 2007) which, even though their roles appear similar, work independently. The establishment of the ASE, SDC, and JSC has enabled the implementation and codification of legislation and regulations to create a conducive environment for investors in the Middle East (McGee, 2010).

4.2.1 Jordan Securities Commission (JSC)

The Jordan Securities Commission was established in 1997 in line with Securities Law No. 23 to regulate the capital market. The commission consists of 5 members who are competent and independent. The sole purpose of this commission is to protect investors from manipulation and fraud as well as providing a conducive environment where there can be safe trading in securities (Haddad, Sbeiti & Qasim, 2017). The JSC further aims to upgrade its own efficiency

and performance as well as increasing market awareness. The JSC reports directly to the Prime Minister and carries out its legal responsibilities with administrative and financial autonomy. The commissioners operate on a five-year term appointed by the Council of Ministers supported by Royal Decree.

The role of the commission is also well outlined in the Securities Law No. 76 of 2002 which gives the commission the authority to monitor all companies that issue securities and financial services. They are also responsible for monitoring the ASE, SDC and securities investment companies. The commission fosters cooperation and informational exchange between Jordan and other Arab countries together with other international organisations with a focus on spreading and consolidating an investment culture in securities with the sole purpose of expanding the investor base (McGee, 2010). Today, the JSC applies the Jordan Corporate Governance Code to all companies listed on the ASE which has done much to boost investor confidence. Additionally, the JSC maintains a partnership with legislative and judicial authorities as a way of upgrading the capital market and protecting investors.

4.2.2 Amman Stock Exchange

Amman Stock Exchange (ASE) was established in 1999 to act as an exchange body for the trading of securities. It is a private institution with financial and administrative autonomy. The ASE has a seven-member board of directors who facilitate the security exchange and monitor and report to the board for consultations. Thus, its key responsibilities are to ensure efficiency, transparency, fairness, and liquidity for the listed securities, as well as to maintain investors rights (Tomar & Bino, 2012). It is the responsibility of the ASE to disseminate trading information to dealers. In simple terms, they enhance public awareness and ensure the visibility of the stock market and seek to ensure that there is more investment in the sector. Both the JSC and the ASE work closely to ensure that international standards and practices are met. The ASE members are also members of the Union of Arab Stock Exchange, World Federation of Exchange and the Federation of Euro-Asia Stock Exchange. Moreover, it is an affiliate member of IOSCO, the International organisation of securities commissions (Tomar & Bino, 2012).

The ASE has two distinct tiers of stocks traded which were principally established to enable investors to identify the status and the requirements of the company they would want to invest

in. The two tiers have also promoted transparency of the Amman Stock Exchange together with the companies traded on the stock exchange. The market capitalisation of Amman's Stock Exchange as of March 2017 was \$24.71 billion adjusted US dollars (Alomari, Power & Tantisantiwong, 2018). However, the primary currency used by the Amman Stock exchange is the Jordanian Dinar. It is ranked position 53 in market capitalisation.

With respect to market efficiency, all studies that investigated the efficiency of the ASE reported that it is an inefficient market even at the weak form level (Atmeh, 2003, Al-barghouhti, 2005)¹⁴. They further stated that existing and potential investors should consider the implications of these results in terms of making an investment decision here.

4.2.3 Securities Depository Centre (SDC)

The Securities Depository Centre is another key player in Jordan's securities sector. This institution was established in 1997 by the Securities Law No. 23. The primary role of the SDC is to enhance investor confidence in securities by encouraging and enabling them to do a follow-up on their investments for enhanced security through the registry. The SDC is the only institution mandated by law in Jordan to oversee the deposit and registration of securities, transfer of ownership and settlement of securities transactions (McGee, 2010). The SDC is characterised by these legal duties it performs within a structure of administrative and financial autonomy.

4.3 Corporate Governance in Jordan

The Corporate Governance Code for the Amman stock market was designed for the development of the economy at all levels and implemented from the beginning of 2009 after the adoption of the Corporate Governance Code for listed companies in the ASE in 2008. This code includes the rules of corporate governance that are directing firms with the aim of establishing a clear framework to manage and control their rights, duties and responsibilities to achieve the firms' objectives and protect the rights of parties with related interests. These rules are based on several legislations, the most important of which are; Jordan Companies

¹⁴ These studies used a variety of statistical techniques. Atmeh (2003) using bootstrap statistical techniques (e.g., ARCH and GARCH) and Al-barghouhti (2005) using traditional techniques (e.g., Autocorrelation and Run Tests)

Law, Jordan Securities Law, and the international principles recognised by the Organisation for Economic Cooperation and Development (OECD) (Securities Commission, 2008).

The Corporate Governance Code of companies listed on the ASE contains a set of mandatory rules (general and peremptory) and guidelines. In 2009, the JSC presented a detailed index of the rules of governance to determine guidelines and mandatory rules. The guidelines, which are the focus of this study, are applied from the obligation or the interpretation of non-compliance. In other words, companies must comply with the guidelines or explain non-compliance in the case of non-compliance with any of these rules (JSC, 2010). In the case of firms that do not comply with these rules sanctions are imposed such as moving from the first to the second market, stopping firms' shares from being listed on the stock market and the result may be a decrease in share price for the firm. The Corporate Governance Code suggests that compliance with these rules leads to several advantages such as enhancing the performance of the national economy and improving practices in the business communities. Table (4.3) shows in detail the development of governance in Jordan.

Table 4.3: Development of Corporate Governance in Jordan

Organisation	Year	Version
Central Bank of Jordan	2004	Guidance booklet for bank board members in the field of corporate governance
Jordanian Insurance Commission	2006	Issuing the provisions of the institutional governance of the insurance companies and the bases of their organisation and management
Central Bank of Jordan	2007	Issuing the Corporate Governance Guide (2007), which contains the provisions and procedures of each bank to be disclosed in the annual report and in compliance, and the interpretation of non-compliance.
JSC	2008	The issuance of corporate governance rules is mandatory for public shareholding companies listed on the financial market to disclose the application of the rules and has to be applied at the beginning of 2009
JSC	2009	A version of the detailed index of the rules of corporate governance, have been identified mandatory rules and guidance rules

Companies Control Department (CCD)¹⁵	2012	issued the Corporate Governance Code for Private Shareholding Companies, Limited Liability Companies, and Non-listed Public Shareholding Companies
Central Bank of Jordan	2014	Issued a new corporate governance code for banks

Source: prepared by the researcher

Lately, in 2012, The Companies Control Department (CCD) issued the Corporate Governance Code for Private Shareholding Companies (CGCPLV), Limited Liability Companies, and Non-listed Public Shareholding Companies on the basis of a memorandum of understanding signed with the International Finance Corporation (IFC) in 2011. Small and medium sized enterprises (SMEs) are specifically not covered by the principles of corporate governance issued by the Central Bank and the Jordanian Securities Commission. The Code is divided into five sections: the Board of directors/management committee–roles and responsibilities, control environment, transparency and disclosure, stakeholders rights (CGCPLV, 2012). As in previous codes, the adherence to these rules is through the "Compliance or Explain" approach.

Most recently, the Central Bank of Jordan (CBJ) issued a new corporate governance code for banks in 2014, as part of its continuous efforts to enhance transparency and efficiency within the banking sector, which supersedes the initial corporate governance guide issued in 2007. This code includes certain rules and principles of a binding legislative nature that must be implemented directly while the grace periods for implementing other sections of the code range from one to four months. Such remarkable steps reflect Jordan's keenness on enhancing the overall governance structure in the country. Presently, the Jordanian Securities Commission (JSC) is looking forward to following the steps of the Central Bank of Jordan in order to activate the corporate governance code for the joint stock companies under the law, in pursuit of full compliance. However, according to Abbadi et al. (2016), corporate governance quality in Jordan has significantly increased over time, and its ability to constrain earnings manipulations has also increased. Moreover, the assessment of the World Bank and the IMF (2004) suggested that corporate governance within Jordanian companies is still insufficiently

¹⁵ The Companies Control Department (CCD) is an independent department associated directly with the Minister of industry and trade. CCD is the main incubator of investment in Jordan, it plays two major roles including the registration of various types of companies (national and foreign), and imposing control over these companies (CCD, 2016).

advanced. This is understandable considering the newness of corporate governance in general, and its relation to government in Arab countries. The financial institutional framework in the region is subject both to a lack of enforcement capabilities and political interference. It is likely that difficulties will continue to be experienced in soliciting investment without a comprehensive and enforceable corporate governance framework (Sharar, 2006). This corroborates the findings of Glaeser et al. (2001), who concluded that whilst economic liberalisation and market reforms result in short-term economic growth in developing economies, weak investor protection, lack of enforcement of patchy regulation result in a shortage of equity financing, asset tunnelling and security delisting (Coffee, 1999).

Furthermore, according to the World Bank's "Doing Business" report (2009), investor protection in Jordan in 2008 was still below the average achieved by member states of the OECD. This implies that investors' rights are weak and hence, the capital market may face difficulties in convincing investors that their investments are managed responsibly. This could be attributable to the Jordanian corporate legal framework that has its origins in French civil law, as the findings of La Porta et al. (1999) and Nenova (2003) contend that French civil law countries have weaker legal protection for investors than it in common law countries. Moreover, the ownership structure in Jordan is characterised by a high level of concentrated in the hands of large shareholders (both individuals and families). This type of ownership may adversely affect the interests and rights of minority shareholders as it may encourage executives to manipulate reported earnings and determine a corporate governance structure to follow the interests of controlling shareholders at the expense of small shareholders (Baydoun et al., 2012). Therefore, further examination of the Jordanian environment remains important particularly, after the adoption of Corporate Governance Code for Shareholding Companies in 2009.

4.3.1 Disclosure and Accounting Standards

For a solid corporate governance to be established, there must be full disclosure and clear accounting standards. This implies that the laws governing securities, companies, banking and insurance must be put in place when following internationally accepted accounting and auditing standards (Tomar & Bino, 2012). Before 1997, there was no auditing and accounting standard-setting body legally established in Jordan. It was the responsibility of the Ministry of

Industry and Trade to regulate the process of accounting practice. All companies in Jordan are required to abide by the International Financial Reporting Standards (IFRS). All companies in Jordan are required to submit their audited financial statements three months after the end of the financial year to JSC (Haddad, Sbeiti, & Qasim, 2017). There are some corporate governance rules provided by the Company Law to auditors in corporations. The rules give a summary of what auditors should include in the report as well as how auditors are appointed. The work of the auditor is to furnish the shareholders with the report on the financial position of the company.

4.4 Ownership Structure in Jordan

Ali et al. (2015), reported that ownership structure in Jordan tends to remain in the hands of the government and individuals. According to La Porta et al. (1999), countries offering weak protection for investors tended to show an ownership pattern where either the state or individuals owned firms. This is an indication of the weakness of legal protection for investors in Jordan.

Ownership structure, especially government ownership, in Jordan is highly concentrated because most listed companies are government owned. Therefore, governments still hold a high percentage of shares in the companies they own. The government owns most banks and insurances companies in Jordan Ali et al. (2015). In these companies, the government has equal rights just as other shareholders. The Jordanian government has been trying to diversify sources of income, and one aspect of that is investment in Jordanian firms. In addition, they may have other purposes such as limiting unemployment. Consequently, the government does not control the behaviour of management.

Moreover, Omran et al. (2008) report that business ownership tends to be highly concentrated in Arab countries. They further found that the levels of private ownership in the ASE is higher than those in other Arab countries such as Egyptian and Oman. According to Idris (2012), individuals and institutions, both local and foreign investors, privately hold 80% of shareholdings. This is because the Jordanian government adopts an open economic policy where both Arab and Non-Arab foreign investors are openly permitted to invest in most companies listed on Amman Stock Exchange (ASE) (Naser et al., 2007). Therefore,

concentrated ownership, local institutional ownership and foreign ownership are considered as important corporate governance characteristic in Jordan.

Generally, shareholders are either block holders, institutions, or the state. Regulations make it necessary for ownership to be disclosed for any party who has more than 5% of shares in the company. Jordanian company law (1997) stipulates that all firms in the Amman Stock Market are obliged to publish their annual financial reports, details of the number of shareholders, members of board of directors, and the ownership percentage for each shareholder and their relatives.

4.4.1 Family-owned Businesses in Jordan

The family-owned business of the MENA region, compared to Western counterparts, are much more complicated in terms of the volume of both the businesses and the family members. In the MENA region, including Jordan, the average family size of family owned corporations, compared to the US and UK, is nearly double. Thus, there is a visible growth in the amount of family members involved in the business.

In Jordan, families are generally conservative and family ties in Jordan are so strong that business owners are obliged to hire family members even if they are not fit for the post.

Being polite is extremely important in Jordan especially having respect for elders because age plays a significant part in the culture. So, it is the custom to take the advice of elders when making decisions. This becomes complicated in family businesses where the family members have multiple roles. On the other hand, the strong bonds among family members are reflected in the inherent trust for one another in the business.

Islamic values and laws are a crucial part of the society in Jordan. Islamic beliefs imply that Jordanians are inclined to be family oriented, rule abiding and hospitable and these social duties affect business dealings in the Jordanian business world. Jordan follows Sharia law when it comes to inheritance, however, Sharia law applies only in the case of the death of the ancestor. It is acceptable in Islam to have a will (Al Wasiya). An Islamic will is executed before distributing the estate among heirs according to Sharia. But it is advised that before writing a

will, one must consult with a legal expert or Islamic scholar to ensure the will complies with Islamic laws as well as the laws of the country of residence. (Hussain A, 2013). Overall, family is the most important component in Jordanian culture and supporting family members is always a source of pride and honour.

One of the largest family-owned business in Jordan is the Nuqul Group. This business has several operations across the MENA region. This privately-owned business has a total of 31 companies with more than 5,500 employees in its various business locations (Ali, Raiden & Kirk, 2015). Throughout history, the Nuqul family has demonstrated that they are able to separate ownership from management. This is a clear demonstration that corporate governance can be implemented successfully in family or private business structures. The Nuqul group not only operates in Jordan but is active in 47 markets worldwide (Ali, Raiden & Kirk, 2015). The success of the Nuqul group can be drawn from its disciplined corporate governance and the integration of the first and second generation in the family.

4.5 Jordan Corporate Governance Code (JCGC)

Jordan introduced its corporate governance code in 2006, following the international corporate governance code. The recommendations in the JCGC were largely informed by principles of the OECD. In 2009, the development of the Corporate Governance Code for Shareholding Companies Listed on the Amman Stock Exchange (JCGC) by the Jordanian Securities Commission (JSC) constitutes a cornerstone of the reforms. The key purposes of this code are to set a clear framework that adjusts the relations and management of shareholding companies listed in the ASE, to define their duties, rights and responsibilities, to define their goals and maintain the rights of all stakeholders. The 2009 JCGC covers several corporate governance issues, including

- Structure of the board and its responsibilities
- Shareholders general meetings
- The rights of shareholders
- Financial disclosure guidelines
- Accountability and Auditing
- Structure of ownership

4.5.1 Effective of Board of Directors

Effective supervision of the board of directors plays a significant role in corporate governance primarily because the board is charged with the responsibility for reviewing, evaluating and advising management. In Jordan, as elsewhere, the board has the responsibility of carrying out the duties as set out by the company law. Duties include planning and setting policies for the company management as well as the appointment of the chief executive officer. Through company law, corporate management has extensive powers and obligations including the preparation of the financial statement of the company within three months of the end of the financial year (Haddad, Sbeiti & Qasim, 2017). The same corporate management prepares the previous year performance annual report and the coming year prospect as well as publishing annual reports and financial statements within one month of the annual general meeting. For the efficient enhancement of corporate governance and control functions of the board, the conduct of the meeting which largely influences corporate governance is regulated by company law. The formation of an audit committee stemming from the board members is covered by securities law. The work of the committee is to report to the board of directors about the audit proceedings (Haddad, Sbeiti & Qasim, 2017). The audit committee meeting is governed by the Securities law which requires that the committee meet at least quarterly.

Board of Directors' Roles and Responsibilities

As company law covers different types of companies, it specifies the roles and responsibilities of each company's board of directors as applicable. Article 62 of the company law defines the roles of management committee while article 72 outlines the responsibilities of the private shareholding board of directors' roles (Ibrahim & Hanefah, 2016). Articles 32 and 142 specify the roles of boards of directors of those companies that are publicly held.

The board of directors is supposed to provide continuity for the company as well as approving structure and strategy (Ibrahim & Hanefah, 2016). Their work is also to approve the annual external report of the auditor and financial statements. They are the ones charged with the responsibility of selecting, appointing, supporting and reviewing the CEO performance. They are responsible to the relevant shareholders. They may receive any issue and decide which require the approval of the board as required by the law. Other roles include monitoring whether the company governance practices are effective and to initiate changes where necessary. They

select, compensate, monitor, and if need be, replace the key executives as well as overseeing succession planning. They should align the executives with interests of the company and its shareholders. Generally, the Board should exercise high ethical standards.

In Jordan, the legislators set the board size as between five and thirteen. However, this is subject to alteration since a company varies in size and nature of work. Unlike other countries, in Jordan, the seats of a board of directors are specified by the company law. There is provision for the Chairman and the Chief Executive Officer, and the director representing employee shareholders. There are also seats for the directors representing the public sector. For the family-owned business, the percentage of board seats varies, but generally, 70% are comprised of family, member while 30% are non-family (Ibrahim & Hanefah, 2016).

4.6 Summary

This chapter reviewed the economic circumstances, and regulatory environment of Jordan to present the distinctive characteristics of the Jordanian business environment that make Jordan a well-suited case to study corporate governance, and family firms issues. First, Jordan is characterised by a limited awareness of corporate governance (Shanikat and Abbadi, 2011) and weak legal investor protection (World Bank, 2009), which highlight the importance of ownership structure and corporate governance mechanisms. For example, ownership in Jordan is typically concentrated among large shareholders such as families and companies, which clearly affect management decisions (ROSC Jordan, 2004). Favouritism is commonplace in appointments to management positions due to the influence of large shareholders (Al-Jazi, 2007). In this scenario, any attempt to introduce good corporate governance principles may be hampered by the inflexibility of these organisations, the limited autonomy of managers, and the lack of managerial objectivity to monitor firm activities and to achieve objectives.

Second, family firms represent a considerable part of Jordanian businesses. Implications of this include that family shareholders might create power bases based on their voting rights, manipulating firm policies to control managers' actions in their own interests, thus increasing the agency problem and undermining firm performance. On the other hand, family shareholders can be expected to monitor management decisions more closely due to their increased stake in the firm, which would expropriate minority shareholder interests. Both alternatives are

possible, thus, this study investigates the influence of corporate governance on the performance of family firms.

Regardless of the limited sources of income and the reliance on foreign aid and capital, Jordan is one of the most favourable investment destinations in the Middle East. Al-Muhtaseb (2009) showed that Jordan is in the top three countries in the Middle East and North Africa (MENA) in terms of attracting foreign investment. In this regard, the study will investigate the impact of foreign ownership on the performance of Jordanian companies.

The following chapter presents the data collection and methodology of the study. It includes a brief discussion on the philosophy and methodology of the research, followed by a detailed discussion on sampling and data collection process, definitions of variables, and regression model used in hypothesis testing.

Chapter Five: Research Methodology and Data

5.0 Introduction

This study seeks to investigate the influence of corporate governance on the financial performance of the Jordanian family and non-family firms. Principally, it takes a corporate governance perspective to examine the impact of corporate governance internal mechanisms and ownership structure on corporate performance. One of the most fundamental characteristics of academic studies is accuracy, so it is important to offer a thorough explanation of how the investigation is conducted (Hussey and Hussey, 1997). This chapter presents the research philosophy, methodology, data acquisition, variables and the rationale for selecting analysis in this study. This chapter provides a clear description of sample and selection procedure and justification for the final selected sample of firms. An explanation for the choice of definition of family firms is offered, which is grounded in the literature explored in chapter three. The main reasons for selecting the specific variables (financial firm performance, corporate governance variables, ownership structure variables and control variables) in this research are then presented. Finally, this chapter discusses the regression analysis that used in the next chapter “empirical results” to understand the impact of corporate governance on Jordanian family and non-family firm performance. In addition, testing OLS assumptions including outliers, multicollinearity, heteroscedasticity and endogeneity are diagnosed with statistical tools. The detection of problems will be addressed and corrected to ensure that regression analysis results are not misleading.

5.1 Research philosophy:

It is important to explore the research philosophy underpinning this study to ensure a systematic approach to the fulfilment of its aims can be taken. Research can make use of different methodologies and research studies need to be clear on whether they are building theories (inductive) or testing them (deductive). In order to understand research paradigms, three subject areas must be considered; ontology, epistemology and methodology (Bryman and Bell 2011; Creswell, 2009).

The first, ontology, confronts the question of reality, for which there are two main ontological arguments. The first, researchers suggest, is that reality can be divided into variables that can

be investigated individually (objectivism), while the second theorises that reality cannot be disconnected from individual perception as they are each connected to and reliant on the other (constructivism) (Creswell, 2009).

Epistemology deals with the essence of the relationship between the researcher and his research. There are again two main epistemological standpoints: positivism and interpretivism. Positivism considers knowledge as something that can be sought using neutral scientific methods not connected to the researcher. Interpretivism on the other hand believes that knowledge and its possessor are interconnected and that it cannot be acquired without consultation with the receiver (Creswell, 2009).

Objectivism supports the positivist perspective, and the two are commonly associated with deductive methods. Constructivism, on the other hand, supports the interpretivist perspective where both are commonly associated with inductive methods. This study uses a deductive method to create and test hypotheses. Burrell and Morgan (1994) stated that positivism “*seeks to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements*”. Saunders et al. (2012) also acknowledge that deduction is related to positivism and go on to describe the links between variables and the necessity of making broad conclusions. Additionally, Positivist researchers often utilise quantitative and statistical analysis to explain their subjects. Neuman (2006, p. 82) stated that “*researchers prefer precise quantitative data and often use experiments, surveys, and statistics. They seek rigorous, exact measures and objective research and they test hypotheses by carefully analysing numbers from the measures*”. In addition, Sarantakos (1988, p. 38) identifies this approach from the point of view of the purpose of social research as “*a tool for studying social events and learning about them and their interconnections so that general causal laws can be discovered, explained, and documented. Knowledge of events and social laws allows society to control events and to predict their occurrence*”.

The nature of this study supports employing the deductive approach in favour of the inductive as:

- they are based on scientific discourse rather than man-made theories based on human experience

- their purpose is to test existing theories rather than create new ones by studying causal relationships between variables instead of looking deeply at the research context, where statistics are collected and examined using a variety of tools
- quantitative research results are analysed and deciphered more enthusiastically because the primary function of the research is to prove or disprove a theory
- The results are more reliable due to the repetition of the same experiment on different test subjects or by a different experimenter. If the same results are not obtained the findings may be considered invalid
- generalisations can be made to draw conclusions on features of the larger population;
- quantifiable data supports the researcher in answering his research enquiry and in meeting the objectives of his study, and is present in almost all business and management research
- It is more organised than the inductive approach

Adopting this approach requires taking the following steps, developing viable hypotheses for testing, taking into consideration the relationship between variables; elucidating the method for testing the hypotheses in addition to how the variables will be measured; examining the hypotheses by assuming a specific approach, which for the purpose of this study, is an experimental research strategy; and testing the results with the aim of confirming the theory, or recognising the need for changes if the results are inconclusive (Robson, 2002).

Thus, the positivist approach has been adopted in the research, where it is assumed that significant amounts of objectively comparable data can be collected, examined and described. As mentioned previously, the objective is to compare the empirical results of the study with the empirical analysis and theoretical constructs reviewed in the literature. Furthermore, the positivist approach supports the theoretical focus of the researcher, while still being able to control the search process. According to Laughlin (1995), positivist research is characterised by a high level of theorising about research and a high level of method formulation. However, Laughlin claims that the use of positive research is clearly unrealistic. This can be recommended when the situation is applied in the study of human behavior where the complex and intangible features of human nature, as well as the quality of the intangible phenomena of the social phenomena and the systematic characteristics of the natural world, may be

contradicted. Laughlin argued "*Parsimonious assumptions are made and the theory's ability to provide meaningful predictions of outcomes is used to assess the theory's utility*".

To summarise, this research does not seek to develop a new theory, rather its purpose is to test existing hypotheses with an analysis of quantitative data making the positivist approach more suitable for this research.

5.2 Quantitative and Qualitative methodologies:

There are three main methods that are used in research studies; quantitative methods, qualitative methods and mixed methods (Bryman and Bell 2011). Qualitative methods offer descriptive and non-numerical approaches in the collation of information to provide an understanding of the phenomenon (Berg, 2004). This type of method is active and flexible and is suited to investigating social processes over time as it can examine subtle variations in attitudes and habits. Quantitative methods are used when a research study uses statistical analysis to draw conclusions or test hypotheses. Their advantages lie in the fact that the findings they produce can be broad and generalisable (Bryman and Bell, 2011), their use of different kinds of statistical analysis (Collis and Hussey, 2003), and they give stronger forms of measurement and reliability (Berg, 2004). Nevertheless, a number of academics opt to use qualitative methods with the vision of achieving enhanced results and justifications. This approach though, is subject to several issues, the first being that, in comparison to quantitative methods where transparency or reliability can already be low (Berg, 2004), the facts produced might not apply to other people or other settings; secondly, it is not as easy to test hypotheses and theories with large participant groups (Hakim, 1987) and thirdly, in comparison to quantitative research, on the whole it takes more time to gather and analyse the data, which could result in inadequate explanations (Berg, 2004).

To go beyond the limitations of a single approach, mixed methods may be used to provide more comprehensive answers to research questions. Mixed methods focus on collecting and analysing both quantitative and qualitative data (Driscoll et al. 2007). According to Creswell and Plano Clark (2011), the mixed method is most suitable when either the qualitative method or a quantitative method is not adequate to address a particular research problem. Although there are many benefits to mixed methods, there are also many limitations. It is time consuming

and costly are both key disadvantages of mixed methods (Creswell & Plano Clark, 2011). Furthermore, unravelling conflicting results and analysing quantitative data qualitatively needs to be tackled.

Following the above discussion, the current study does not consider the qualitative approach for several reasons. First, the primary purpose of this research is to study the relationship between corporate governance mechanisms and the financial performance of Jordanian family and non-family firms. According to Denzin & Lincoln, (1994, p. 4) the quantitative approach emphasises “*the measurement and analysis of causal relationships between variables*”. Second, because of difficulties in accessing data via interviews of various companies and the weak responses from companies. In fact, the researcher tried to contact companies to conduct interviews by calling and emailing them in order to collect information on corporate governance practices. But still, of the 103 companies approached, only 10 answered, most of them stated that they do not have time and are unable to interview the researcher. Again, the researcher tried to contact them several times but without response. Therefore, the researcher will use secondary data and adopt the positivist approach through the pre-existing theoretical foundations and depend on developing the hypotheses; the findings show whether the tested hypotheses are rejected or proven. Third, the use of secondary data facilitates the comparison between the results of this study and previous corporate governance studies. Finally, the process for analysing qualitative data is costly and time intensive.

In short, this study will rely on one method to collect data which is the quantitative method through *Thomson one database and firms’ annual reports*. In line with most studies in developed and developing countries (see, e.g. Abdallah and Ismail, 2017; Christensen et al., 2013; Ducassy and Guyot, 2017; Young, 2000) and to examine the impact of variables on the relationship between corporate governance mechanisms and the performance of family and non-family firms, regressions are used as the tools of analysis. To achieve this objective, an OLS regression model will be used in this study, which is in line with the positivism approach of methodological processes, that is “*unaffected by individual perceptual differences*” (Ardalan, 2008, p.11).

Thus, using a sample of 721 firm-year observations drawn from the Amman Stock Exchange over the period 2009 to 2015, the current study investigates the status quo and uses a multivariate regression to (i) examine the relationship between a number of explanatory variables (governance variables) and the performance of firms in Jordan, (ii) examine the impact of the board of directors characteristics on the financial performance of family and non-family firms, (iii) examine the impact of the ownership structure on the financial performance of family and non-family firms, (iv) investigate if the impact of board of director characteristics and ownership structure on family firms differ from their non-family counterparts in Jordan. Such an approach allows the researcher to test the adopted theory against a unique sample that makes it possible generalise the findings of this study to the population as a whole.

5.3 Research sample and selection procedure

This research employs data that includes corporate governance mechanisms, ownership structure, and firm characteristics and financial ratios of a sample of Jordanian listed firms in the ASE for the period 2009 to 2015. The sample covers all companies that have been part of the ASE during this period. Both family and non-family firms have been included in the sample of Jordanian companies listed on the Amman Stock Exchange (ASE). Initially, a total of 228 companies were listed on the ASE as of 31 December 2015. Consistent with previous studies in the area of corporate governance and firm performance (see, e.g., Anderson and Reeb, 2003; Al-Fayoumi et al., 2010; Estrin et al., 2009; Andres, 2008), financial companies have been dropped from the sample because they are subject to a strict set of regulations which are different from companies in other sectors (Chen et al., 2008), and the distinctive features of financial statement and reporting rules makes these firms incomparable with those of other companies (Abed et al., 2012). Such institutions are managed by separate acts and different forms of instructions to those firms in non-financial sector. For example, in Jordan, banks are under the supervision of the Central Bank of Jordan. Indeed, financial companies have a highly targeted capital structure, which can significantly affect their financial performance (Lim et al., 2007). Thus, confusion would occur during the data analysis. By following the same method of previous studies, the results obtained can be more useful and effective as they can be more directly compared with the results of other studies.

After the exclusion of financial companies, the data used in this study is subjected to the following criteria: First, we exclude companies from the sample if any of the independent variables needed for the analysis are missing from annual reports that are obtained either through the ASE official website, the SDC archives, the companies' websites or Thomson One database. Second, companies that did not survive on ASE for less than the study period (2009 to 2015) were dropped from the sample. This selection procedure reduced the sample from 277 to 103 firms during the period 2009-2015 (representing 77.19 per cent of sample to non-financial firms). Table 5.1 presents a description of the study sample after excluding items such as financial companies, missing data, and provides 721 firm-year observations.

Table 5.1: Sample Selection Procedure	
Total number of listed companies on Amman Stock Exchange as in Dec 2015	228
Less No. of financial firms*	107
No. of non-financial firms**	121
Less No. of companies with missing data	18
Final sample	103
% of sample to non-financial firms	85.12%
Observations	721

* Financial companies include the following segments: Banks, Insurance, diversified financial services and Real Estate Source: Amman Stock Exchange Annual Reports.

** Non-financial companies include the following sectors: Health Care Services, Educational Services, Hotels & Tourism, Transportation, Technology & Communication, Media, Utilities & Energy, and Commercial Services, Pharmaceutical & Medical Industries, Chemical Industries, Paper & Carton, Printing & Packing, Food & Beverage, Mining & Extracting, Tobacco & Cigarettes, Engineering & Construction, Electrical Industries, Textiles, Leather & Clothing, and Glass & Ceramics. Source: Amman Stock Exchange Annual Reports.

In our investigation, the data collected was principally classified into four different types: (i) corporate governance mechanisms; (ii) ownership structure variables; (iii) firm financial performance (accounting and market-based measures); and (iv) firm's characteristics. The data was collected from various secondary sources. First, data related to the corporate governance mechanisms and corporate characteristic (firm age) were manually collected from the annual reports of each firm for the relevant years. Second, data related to the ownership structure (large shareholders and local investors' ownership) were manually collected from the annual reports and the companies' websites, while foreign ownership was obtained from Thomson One database and the Amman Stock Exchange annual company guide. Third, firm financial

performance variables and data related to firm size and leverage variables were obtained from firms' financial statements obtained from the Securities Depository Centre (SDC). According to Fraser et al. (2006), company annual reports are one of the most accurate secondary data sources. They further argue that collecting data and information from annual reports denotes a high level of quality and reliability. With respect to the annual reports of Jordanian listed companies, the annual reports submitted by companies are consistent with international accounting standards and are subject to external review, to ensure that they comply with the legal and professional standards issued by the International Federation of Accountants (IFAC). Al-Htaybat et al. (2011), investigated listed Jordanian companies to explore the current status of corporate online reporting. They reported that approximately 36% of Jordanian listed companies were without accessible and active websites. For this reason, the researcher started the data sampling from year 2009, as previous years suffer from the lack of annual reports of companies. The sample ends in 2015 because this is the last year for which data is available, the data being collected between July 2016 and December 2016. Thus, the final sample consists of 103 firms and 721 firm year observations, and provides 56 family firms and 47 non-family firms. On the other hand, the sample used in the current study is comparatively larger than existing Jordan studies related to this area (see, for example, Al- Haddad et al., 2011; Bawaneh, 2011; Tomer and Bino, 2012). It is noteworthy that the sample size including family firms used in this study is another improvement on previous Jordan studies.

5.4 Defining Family-owned firms

To conduct our investigation, we used data of firms listed on the ASE that are family-controlled and owned, further explanation of how family firm was defined in this study is critical. There are still many challenging questions regarding how 'family firm' is defined (Handler, 1989; Stempler, 1988). For example, a wide variety of definitions make it difficult to carry out effective comparison (Zahra and Sharma, 2004), and they are also full of ambiguities (Upton et. al., 1993). Therefore, the basic criteria for classifying the family firm is still not consistent in the literature (Miller et al., 2007). Handler (1989) contended that *"defining the family firm is the first and most obvious challenge facing the family business researcher"* (p.258). However, researchers have considered several factors in order to define family firms; family ownership in the literature tends to be the main factor for definitions. In addition to family ownership, criteria such as family members on the board, family CEO (governance), family

management and succession are all used as components of definitions (Westhead & Cowling, 1998). Although researchers reached agreement that a firm owned and controlled by one family or small number of families is a family firm, others have shifted the definition of family firm to be more narrowly quantified. Such definitions seek greater accuracy by stipulating that the founder and/or family member should hold a certain level of ownership and/or a number of family members have to be present on the board of directors as CEO or members (Chua et al., 1999; Anderson and Reeb, 2003; Yammeesri and Lodh, 2004; Villalonga and Amit, 2006).

In this thesis, the criterion to define a firm as family firm based on “10% cut-off level” was adopted, in line with two important research that are often cited in corporate finance studies; La Porta et al. (1999) and Claessens et al. (2000). One of La Porta’s explanations for using the 10% cut-off level is “*to provides a significant threshold of votes; and most countries mandate disclosure of 10 percent, and usually even lower, ownership stakes*” (1999, p.475-476). According to La Porta et al. (1999) and Claessens et al. (2000), using the 10% cut-off level, the company will have an ultimate controlling shareholder who has direct and indirect voting rights in the company exceeding 10% (La Porta et al., 1999). Therefore, they defined a family firm as a company owned by an individual or two with the same family name or family members who collectively own 10% or more of the shares. This study has adopted this definition. However, in very few cases, the large shareholders include those with a different family name, so we investigate whether there is another individual with the same family name on the board of directors. Thus, we are assured that at least two members of the same family are involved in the company and therefore consider it a family owned-controlled firms. As shown in Table 5.2, we can see that more than 90% of these companies have at least one of family member on the board of directors. Based on this definition, 56 family firms and 47 non-family firms were selected for this study, providing 392 family firm year observations and 329 non-family firm-year observations.¹⁶

Table 5.2: Family members on the board of directors			
	Family Firms	With family member	Without family member
Total	56	52	4
Percentage	100%	92.86%	7.14%

¹⁶The list of family firms in Jordanian industrial and services sectors is available in Appendix 3.

Identifying information for family firms is also available in annual reports; (i) full names of the top five largest shareholders with a proportion of their shares representing 5% or more; (ii) the full names of directors with the percentage of their shares. As part of the listing requirements on the ASE, family relationships or kinship should be disclosed. These details are available in the “Securities owned by the relatives of Directors” section of annual reports. However, it is not difficult to track family ownership in Jordan for several reasons, (i) two or more families do not have the same name; (ii) All family members have the same family name whether male or female; (iii) Jordanian law gives women the right to retain their family name after marriage. Thus, the names of the second-generation of family members can be clearly identified; (vi) in our sample, the average age of Jordanian firms is relatively low (i.e. 25 years). Therefore, it is not difficult to know whether the family members are still in the firm or not. To further check the family firms, the names of the owners of each company were obtained through the archives available in the Companies Control Department at the Ministry of Industry and Trade of Jordan.

Although ownership data was collected from the annual reports, direct ownership reported in firm annual reports is sometimes inadequate and inappropriate to find out the family ownership percentage. This is because some individuals and family members have indirect holdings in the company through other companies, especially through private companies they own.¹⁷ Following Claessens et al. (2000) and La Porta et al. (1999), we use the “ultimate owner”¹⁸ method to determine the proportion of family ownership in the firm. For example, for one of the companies in the sample – Jordan Paper & Cardboard Factories – the direct large shareholder of the firm is a private company with a 34.2% equity stake. There are three family members of the “Abu Jaber Family” mentioned in the annual report as each having indirect ownership of a 34.2% equity stake with a clarification in the report that the shares are held through a private company. Therefore the “Abu Jaber Family” is considered as the ultimate controller of the listed firm. However, this study selected only those firms with an individual person or a family as the ultimate holder. In the other words, if an individual person or family

¹⁷ These private companies entirely owned by the family and used as “agents” to enable family members the control over other companies.

¹⁸ An ultimate owner is somebody who is not monitored by anyone else (La Porta et al., 1999; Claessens et al., 2000).

members hold at least a 10% equity stake in the firm it is considered a family firms, otherwise, the firm will be considered a widely-held corporation.

5.5 Variables Definitions

5.5.1 Independent variables

The main idea of this study is to investigate the influence of corporate governance mechanisms on performance in the case of listed family and non-family companies in Jordan. As illustrated by previous studies described in chapter three, there are several variables that affect the relationship between corporate governance mechanisms and corporate performance. The variables used in the present study can be categorised into three main types; variables related to the board of directors and the ownership structure as independent variables, variables related to the financial performance measures include accounting-based measure (ROA and ROE) and market-based measure (Tobin's Q) as dependent variables. Firm age, firm size and leverage are control variables in this study. More information about the variables, their measures and definitions are displayed in Table 5.3.

5.5.1.1 Variables related to Board of Directors

Board of directors is a main internal corporate governance mechanism responsible for determine the main objective of the firm, agree on strategies and plans to achieve these objectives, develop firm policies and appoint the CEO. The board of directors is used as one of the independent variables in the present study. Five variables were measured from the board of directors' data, which are:

- Board size: measured by the total number of directors that shapes the board. The number of board members was manually collected from the firms' annual reports.
- CEO duality: measured as a dummy variable takes the value of one if the CEO is chairman, and zero otherwise.
- Independent directors: measured as the percentage of independent directors by dividing the number of independent directors by the total number of directors on the board.
- Female board member: measured as the total number of female directors on the board.
- Family CEO: measured as a dummy variable taking the value of one if the CEO is family, and zero otherwise.

In summary, these variables were manually collected from the firms' annual reports (The information given of board directors who were present throughout the financial year).

Prior empirical studies have also examined the usefulness of board of directors, through examining the impact of various variables that relate to board of directors on firm performance, including audit committee and board meeting. With regards to board committees, are considered as a control mechanisms to promote increased accountability and optimal financial management of companies, with increased protection of shareholder interests (Cadbury, 1992). Another crucial corporate governance mechanism that may improve the effectiveness of the board is board meeting. According to Lipton and Lorsch (1992) boards which meet regularly are more likely to diligently achieve their obligations. Therefore, boards which meet more regularly should be able to give more time to issues such as profit management, while, boards that infrequently meet may not have adequate time to focus on such issues and may perhaps only "rubber-stamp" the plans of management. However, it is worth noting here that there is no sufficient information available from the Amman Stock Exchange about audit committees and board meeting for Jordanian listed firms. Indeed, very few companies disclose the number of board meetings in their annual reports. Thus, including these variables into this study would dramatically shrink the sample size and therefore, this study is unable to investigate the impact of audit committee and board meeting on corporate performance in Jordan.

5.5.1.2 Variables related to Ownership Structure

Ownership structure is also used as an independent variable. Three types of ownership data were measured:

- Concentrated ownership: measured by the percentage of total shares held by large shareholders. The study will use the 5% cut-off level, based on the JCGC and the Jordanian Company law (JCL) classification of large shareholders as those who own 5% or more of a firm. According to ASE rules, any entity that owns more than 5% of the company's shares must appear in the annual report. Thus, the concentration ownership variable would be extracted from the firms' annual reports.
- Local institutional ownership: measured by the percentage of total shares held by local institutional shareholders (i.e. only shareholders who were disclosed by the company

to be substantial shareholders, with share ownership of more than or equal to 5% of the company's total share capital, including, banks, insurance companies, and pension funds such as the Social Security Corporation Investment Unit).

- Large foreign ownership: measured by the percentage of outstanding equity held by all foreign shareholders (that is, with shareholdings of 5 per cent or more).

In brief, concentrated ownership, local institutional ownership, and the total share of ownership by foreign investors in the top five shareholders were used as measures of ownership structure.

Table 5.3: Variables definitions and explanations

Variable	Symbol	Definition
Board Size	<i>BOSIZE</i>	The total number of directors that shape the board
CEO Duality	<i>CEODUALITY</i>	A dummy variable takes 1 if the CEO being chairman, and 0 otherwise.
Independent Directors	<i>INDTDIR</i>	The number of independent directors / the total number of directors on the board.
Female Board Members	<i>FEMALEBO</i>	The total number of female directors on the board.
Family CEO	<i>FAMCEO</i>	A dummy variable takes 1 if the CEO being family, and zero otherwise.
Concentrated Ownership	<i>OWNCON</i>	The total of shares that are owned by shareholders who own 5% or more in the company
Local Institutional Ownership	<i>OWNLOC</i>	The total percentage of shares owned by local institutional shareholders
Foreign Ownership	<i>OWNFOR</i>	The total percentage of shares that owned by foreign shareholders.
Return on Assets	<i>ROA</i>	$(\text{Net Income} / \text{Total Assets}) \times 100$
Tobin's Q	<i>TOBIN'S Q</i>	$(\text{Equity Market Value} + \text{Liabilities Market Value}) / (\text{Equity Book Value} + \text{Liabilities Book Value})$
Firm Size	<i>FSIZE</i>	Natural Log of Total Assets
Firm Age	<i>FAGE</i>	Number of years since Incorporation
Leverage	<i>LEVERAGE</i>	Total debt / Total assets.

5.5.2 Dependent variables: Financial performance measures

In this thesis, we seek to investigate the relationship between the independent variables (board of directors and ownership structure) and the dependent variables (financial performance) of family and non-family firms in Jordan. Therefore, accounting and market based measures are used to measure the performance of companies for two reasons. First, previous empirical studies suggest that firm performance is assessed differently by shareholders and directors (Dahya and McConnell, 2007). While directors are more interested in accounting-based measures because it gives a better indication of the implications of corporate governance from their point of view, shareholders find out the impact of corporate governance through market-based measures (such as Tobin's Q). Second, both accounting and market-based measures have been used by most previous corporate governance and corporate finance studies, and they have not agreed on a specific measure to be the best proxy for corporate performance (Haniffa and Hudaib, 2006). Therefore, the use of *ROA* and Tobin's Q attempts to investigate the robustness of the findings of one measure against those of the other.

5.5.2.1 ROA

ROA as accounting measure which was cited by Ross et al. (2003) as an indicator of the corporate board effectiveness in controlling operations and using firm assets to increase profits. Generally, a high value of ROA indicates that directors manage the firm efficiently which leads to increase firm value and shareholder wealth. In addition, Demsetz and Lehn (1985) argued that ROA is more demonstrative than other stock market rate of returns in term of year-to-year fluctuations of fundamental business conditions. This implies that accounting-based measures based on historical reports do not reflect the future developments of firm performance, but they provide adequate indications for current fluctuations in business conditions. Further, ROA is a good tool to measure firm performance since they exclude the differences of company size, thus providing an easy solution for comparison between companies (Lev and Sunder, 1979). From a shareholders perspective, ROA and ROE are considered to be the most significant ratios to measure corporate performance, where ROA indicates assets that are utilised to support company activities and ROE indicates assets directed to the return of the shareholders (Demsetz and Lehn, 1985; Mehran, 1995). However, according to agency theory, agents are more likely to seek their own interests and misuse company assets thus reducing the return for shareholders. Therefore, accounting based measure ROA is directly linked to how company management use

firm assets leading to increased or decreased shareholder returns; however, according to Ross et al. (2008) these accounting based measures such as ROA suffer from some limitations, for example, those ratios are historical measures and they do not provide adequate indication of long term and strategic performance. Hence, Krivogorsky (2006) argue that ROA is based on historical cost accounting. Consequently, they are not able to directly reflect the current volatility in valuations of the stock market. In addition, Alexander et al. (2007) argue that ROA is influenced by accounting policies, techniques and methods. They further argue that accounting measures fail to identify environmental and industry differences such as worker and client satisfaction.

Overall, several measurements have been used in order to examine corporate performance by previous studies. Most of the studies test the firm performance using a variety of financial measures. According to Marashdeh (2014), 80% of studies that identified the significant variables affecting company's performance utilized ROA as main variable. In addition, different studies such as Shrader et al. (1997), Kiel and Nicholson (2003), Carter et al. (2003) and Erhardt et al. (2003) used the ROA in examining the effect of the corporate governance on firm performance. Thus, the results obtained can be more useful and effective as they can be more directly compared with the results of other studies.

In this thesis, the accounting-based measure (ROA) has been chosen as a measure for financial corporate performance. The potential impact of the associated limitations and weaknesses is reduced by adding a list of control variables to justify the use of such accounting based measures.

ROA is an indicator of how management efficiency in using existing assets to generate incomes. The ratio for each year is calculated by dividing the net income by the total assets of the company. It is also known as Return on Investment (ROI)

$$ROA = Net\ Income / Total\ Assets.$$

All financial data relating to accounting based-measures (ROA) used in this study were extracted from the Securities Depository Centre (SDC).

5.5.2.2 Tobin's Q

Tobin's Q ratio is one of the most frequently used proxies for a market-based measure of financial performance and firm value, not only by corporate governance studies (such as Agrawal and Knoeber, 1996; Anderson and Reeb, 2003; Gompers et al., 2003; Muravyev et al., 2014), but also by empirical studies in corporate finance (such as, Perfect and Wiles, 1994; Lewellen, 2004). This strongly supports the validity of Tobin's Q and provides a justification for employing it in other studies. Like ROA and ROE, the high value of Tobin's Q is an indicator of management efficiency, company performance and value to the market.

However, like any other measure of financial performance, Tobin's Q is subject to several limitations. According to Chung and Pruitt (1994), the use of Tobin's Q requires a large amount of data and a lot of effort, which means it is a costly measure. Therefore, the original calculation of Tobin (1969) has been developed in the finance literature to compute the ratio by use of the book values of assets, equity and debt, as it is difficult to estimate the value of replacing the company's assets. Accordingly, it can be said that Tobin's Q is similar to accounting-based measures, because it depends on historical data (Padgett and Shabbir, 2005), and therefore has the same limitations as ROA for creative accounting and manipulation by management. However, this limitation can be ameliorated by using fair value accounting (Alexander et al., 2007).

Furthermore, Tobin's Q may show inaccurate results due to its correlation with corporate governance. In other words, the high value of Tobin's may not point to better asset utilisation by managers. This occurs because some assets (such as intangible assets) have different book and market values in the balance sheet (Beattie and Thomson, 2007). Besides, some intangible assets, such as patents and human resources, are difficult to value. In addition, Henwood (1998) argued that different values of Tobin's Q may not provide an accurate value of the unobserved economic situation, but may be affected by investor confidence and speculation. A perfect example of this situation is the 'credit crunch' in the financial crisis of 2007-2008, where investors' speculations led to lower stock prices of some companies (Walker Review, 2009; Gorton, 2009). Indeed, this criticism can be found in most performance measures and is not limited to Tobin's Q.

As mentioned earlier, the Tobin Q calculation varies from one empirical study to another. For example, Yermack (1996) calculated Tobin's Q by dividing the market value of assets by replacement cost, while Booth and Deli (1996) divided the market value by the total assets. Following Booth and Deli (1996), this thesis uses the total assets instead of a replacement cost of assets due to the data missing. Therefore, the ratio for each year is calculated by dividing the market value of the firm by the total assets and extracting it directly from the SDC Official website:

$$\text{Tobin's } Q = \text{Market value of the firm} / \text{Total assets}$$

5.5.3 Control Variables

In addition to independent and independent variables, control variables were introduced to explain the difference in the company's performance. Several corporate governance studies (Yermack, 1996; Gompers et al., 2003 and Black et al., 2006) used several control variables. As shown in Table 5.3, a list of control variables used in this study (for example, firm size, firm age, leverage and industry dummy) was included. The researcher admits that it can also be said that there may be other relevant factors. However, by reviewing the previous literature there is no specific formula for control variables. So, by following different studies, it is common to include below as control variables.

5.5.3.1 Firm size

Firm size is an important factor that has a direct impact on corporate governance practices and firm performance (Samaha, Dahawy, Hussainey, & Stapleton, 2012). This variable has been used in several previous studies (such as, Himmelberg et al., 1999; Cassar and Holmes, 2003; Lehn et al., 2009; Al-Matari et al., 2012). It has been argued that the firm size variable is likely to have a positive correlation to corporate performance. This is because of the differences in the cost of compliance, operations level, market policies and agency problem (Jensen, 1986; Beiner et al., 2006). Dietrich and Krafft (2012) suggested that large firms are more likely to have a better opportunity than smaller firms in accessing external funds at cheap cost and increasing their firm value, due to their size. In addition, according to Fama and Jensen (1983) and Boone et al. (2007) increasing the size of the company makes it more diversified, which means that large companies become more closely linked to complex processes to pursue

established goals and strategies in an effective approach. These findings support the conclusion of Serrasqueiro and Nunes (2008) that large firms are able to increase their funding and create more diversified strategies, and also has a diverse group of experienced management staff. Furthermore, Agrawal and Knoeber (1996) argued that large companies have a higher level of security and inspections, and therefore it is difficult to achieve any kind of private benefits and for shareholders (such as family owners) to achieve their individual profits (Nenova, 2003). Also, large companies have more strength in the market, which leads to higher performance. Black et al., (2006) and Hanifa and Hudaib (2006) found a positive association between firm size and corporate performance.

On the other hand, many studies (see, for example Nenova, 2003; Agrawal and Knoeber, 1996) suggest that small firms are better than large firms because of growth opportunities. The explanation for that is because small firms are more likely to comply with strict corporate governance rules in order to attract investors and external funds to invest in these opportunities and increase profitability (Kalpper and Love, 2004). Garen (1994) believe that small firms are more efficient than large firms. This is because management has less control over operational activities where the size of the firm is large. In addition to that, Jensen and Meckling (1976) assert that increasing the size of the firm leads to increased agency costs, as large firms need more control to avoid management opportunism. They further argue that firm growth requires more internal control tools for forecasting and designing. This can lead to conflict of interests between managers and the owners and needs to be aligned (Jensen and Meckling, 1976).

Empirical studies have found inconclusive results on the impact of company size on financial performance, but they still agree on linkages between company size and performance. Many previous studies have measured this variable by the log of total assets (see, for example Cassar and Holmes, 2003; Elsayed, 2007; Topak, 2011). The reason behind using this logarithm is to mitigate heteroscedasticity problems (Aliani and Zarai, 2012). According to the above discussion, the firm size was used as a control variable in this study, measured by the natural logarithm of total assets. Total assets were extracted from financial statement balance sheets provided by the firm annual reports.

5.5.3.2 Firm Age

Firm age is defined as the number of years a firm has been incorporated and has been used as a variable by many empirical studies (such as Boone et al., 2007; Segarra & Teruel, 2009; Hadlock and Pierce 2010). These studies confirmed that firm performance can vary depending on the age and size of the firm¹⁹. Ouimet and Zarutskie (2014) showed that young and smaller companies have higher growth opportunities than old and large companies. The reason behind this finding, suggest Claessens et al. (2002), is that as the company gets older, the liquid tradable securities, disclosure quality and diversified activities tend to increase, which reduces the risk of financial distress, but also reduces growth opportunities. In contrast, younger companies may have greater growth opportunities but still face unfavourable market conditions. It has been documented that when companies are at an advanced stage of their life cycle, uncertainty among investors and changing stock returns tend to fall (Adams et al. 2005).

Older firms are often more qualified and experienced but less able to adapt to changes in the business environment (Boone et al., 2007). Borghesi et al. (2007) asserted that old firms are less dynamic to modifications in the environment. On the other hand, Easterbrook and Fischel (1985) observed that new listed firms start with low incomes because they are less qualified and skilled in the business market and are seeking to establish themselves within the market (Lipczinsky and Wilson, 2001).

Empirically, the relationship between the age of the firm and corporate performance produced mixed results. Some reported significant and positive relationships between age, corporate performance and value (Papadogonas, 2007; Coad et al., 2014). Others have found a negative relationship (Coad, Segarra & Teruel, 2007; Dogan, 2013; Akben-selcuk, 2016).

In line with previous studies (Boone et al., 2007; Borghesi et al., 2007; Akben-selcuk, 2016), firm age is calculated by taking 2015 and subtracting the firm's date of incorporation, using data from the Securities Depository Centre official Website (SDC).

¹⁹Empirical studies usually used firm size and age as measures of the same phenomenon in that older firms tend to be large ones and vice versa. Then, studies began to directly use the age of the company as an explanatory variable in the empirical models examining the company dynamics from different subjects (Coad et al. 2014).

5.5.3.3 Leverage

This study measures the influence of firm leverage by total debt to total assets. For this measure, leverage is a ratio that points to the percentage of the company's debt to its total assets. It proves how the firm relies on debt to finance assets. The ratio allows investors to promptly measure the amount of debt the company has on its balance sheet compared to its assets. The higher the percentage, the greater the risk associated with the operation of the company. A low debt ratio shows that conservative financing offers an opportunity to borrow for future projects and activities without any serious risk.

The relationship between leverage and corporate performance showed mixed results when examined. A positive impact on corporate performance may occur due to monitoring performed by lenders. Stiglitz (1985) argued that efficient control over management behaviour is carried out primarily by lenders rather than principals. Jensen and Meckling (1976) stated that leverage as an internal corporate governance mechanism can play a vital role in reducing agency problems, particularly free cash problems. This is confirmed by Jensen (1986) who argued that greater levels of external debt may be expected to have a positive effect. Jensen argued that increasing the level of debt prevent the managers from using free cash flows for non-profitable investments. Leverage is linked positively to the performance of companies where the company's debt is used to finance new projects in addition to the effective monitoring by lenders of company activities (Agrawal and Knoeber, 1996). Moreover, Ross (1977) pointed out that high leveraged companies might be a good signal for the company, as it suggests that the company can meet large amounts of debt.

Conversely, Stulz (1988) reported that highly leveraged firms will influence the market value of equities and lead to increased financial risk. Furthermore, Stulz argued that high amounts of leverage will slow down the performance of the firm by increasing attention and monitoring of creditors on the firm activities. In addition, Myers (1977) argued that high amounts of leverage may adversely affect the performance of the firm in accordance with the problem of lack of investment. This is due to increases in financial leverage that hamper the company's ability to raise new debt. Similarly, Andrade and Kaplan (1998) expected a negative association between leverage and performance arguing that firms with higher leverage tend to perform worse than

firms with lower leverage. For this study, leverage data was extracted directly from the Securities Depository Centre (SDC).

5.5.3.4 Industry

Corporate performance is expected to be different among firms based on industry types (Hussainey & Al-Nodel, 2008). The fourth control variable used in this thesis, is industry sector. Many empirical studies found that the influence of corporate governance on firm performance varies between companies according to the industry sector, complexity of operations, ownership levels and type of business (Wernerfelt and Montgomery, 1998; Elsayed, 2007; Lim et al., 2007). These studies argued that the impact of economic factors varied between industries, and thus the influence of corporate governance compliance on corporate performance may differ from one company to another according to their industry. For example, the increase in steel iron price may increase the performance of corporations in the mining and extraction sector, but this increase has an adverse effect on the performance of corporations in the engineering and construction sector. Following previous corporate governance studies (e.g., Klapper and Love, 2004; Henry, 2008; Mandaci, 2010), the industry sector is used as a dummy variable.

The classification of the industries was initially based on ASE classification. The industry sector includes 10 industries and the service sector comprises 8 industries. Table 5.4 shows the number and percentage of family and non-family firms in each industry. There are about 56 family firms out of 103 firms, almost 55%. It is noted from the data that family firm is the prevalent organisational form in traditional industries, such as educational (100%), mining and extraction (75%), pharmaceutical and medical (67%), food and chemical (63%), textiles, leathers and clothing, and commercial (59-60%), health care and hotels and tourism (50%), and electrical (25%). This means the importance of controlling the industry sector in the empirical analysis (Anderson and Reeb, 2003). In addition, the table show the prevalence and importance of family firms in the Jordanian service and industrial sectors.

Table 5.4: Number and Percentage of Family and Non-Family firms of each Industry

Industry	No. of Family Firms	No. of Non-Family Firms	Percentage of Family Firms in Industry
Health Care	2	2	50%
Educational	6	0	100%
Hotels and Tourism	5	5	50%
Transportation	7	5	59%
Technology and Communication	0	2	0
Media	0	1	0
Utilities and Energy	0	4	0
Commercial	7	5	59%
Pharmaceutical and Medical	4	2	67%
Chemical	5	3	63%
Paper and Cardboard	0	1	0
Printing and Packaging	0	1	0
Food and Beverages	5	3	63%
Tobacco and Cigarettes	1	0	100%
Mining and Extraction	9	3	75%
Engineering and Construction	1	5	17%
Electrical	1	3	25%
Textiles, Leathers and Clothing's	3	2	60%

5.6 Research Hypotheses

In the literature review chapter, the hypotheses were developed, the following sections now develop a discussion and testing of these hypotheses. The first hypothesis (H1) considers the association between board size and corporate performance of family and non-family firms. The second section tests and debates the second hypothesis (H2) considers the association between CEO duality on performance for family and non-family firms. The third section tests and debates the third hypothesis (H3) considers the association between independent directors and corporate performance of family and non-family firms. The fourth section tests and debates the fourth hypothesis (H4) considers the correlation between female board members on performance for family and non-family firms. The fifth section tests and debates the fifth hypothesis (H5) considers the association between the CEO-family on performance in family and non-family firms. This is followed by testing and debating the sixth hypothesis (H6) considers the association between concentrated ownership and corporate performance for family and non-family firms. The seventh hypothesis (H7) considers the relationship between local institutional ownership and firm performance, and then hypothesis (H8) considers the association between foreign ownership and performance of family and non-family firms.

In this chapter, we also investigate the direct relationship between the control variables of firm size, age, leverage and industry control on firm performance

These hypotheses will be tested using multivariate analysis. The results will then be clarified and compared with previous results, if available. This thesis examines the impact of multiple variables on corporate performance as a dependent variable. Therefore, a multiple regression is appropriate in this study.

5.7 Empirical Design

In corporate governance studies, the three main types of data commonly used in empirical analysis are, cross-sectional data, time series data and panel data (or time-series cross-sectional data). For cross-sectional data, observations are collected for multiple subjects (entities or units) at a single point in time. Whereas with time series data, the observations are collected for a single subject (entity or unit) at different time intervals (generally spaced evenly). With

panel data, the observations are collected for multiple subjects over multiple time periods (Gujarati, 2003). Given that data was collected for a number of companies' n , over a long period of time t . The current study uses a panel data that is expected to enhance the quality of the analysis in many ways that may not be possible when using only cross-sectional or time series data.

Using panel data has many features. First, since the data collected includes observations of many firms over a period of time, the issue of heterogeneity can be controlled. Second, according to Gujarati (2015) panel data gives “*more informative data, more variability, less collinearity among the variables, more degrees of freedom and more efficiency*” (p.327). Third, the use of panel data provides the greatest possibility of investigating the dynamics of adjustment. Fourth, with panel data, the researcher has the ability to capture undetectable effects in both cross-section and time series data. For instance, in this thesis, the effects of changes in corporate performance is examined over a period of seven years, where it is difficult to investigate the impact of any change in corporate governance mechanisms on performance in cross-section. Panel data also reduces the probability of bias in the data (Baltagi, 2005). Thus, in this thesis, the same seven-year period was used for all observations.

A small number of studies on corporate governance in Jordan have used panel data to investigate the effects of corporate governance on firm performance (Al-Najjar, 2010; Al-Haddad et al., 2011; Alabdullah et al., 2014). In addition, none of the above studies used the latest and most comprehensive data, which distinguishes this study from other studies on corporate governance in Jordan. Most of the above studies used data up to 2009. Furthermore, none of the above studies included family firms in their empirical investigation to measure whether the impact of governance mechanisms on the performance of family firms differed from other counterparts, which this study does consider.

Moreover, the majority of the above-mentioned studies used a single measure to measure financial performance (ROA or Tobin's Q), while in this thesis the company's performance was presented in two different ways: accounting and market-based measures. This analysis allows observing any changes on the impact of corporate governance mechanisms on corporate performance from two perspectives.

Following previous studies such as Guest (2008), Mcknight and Weir (2009), Cohen and Zarowin (2010), Habbash and Alghamdi (2016), among others. This thesis employs a multivariate pooled OLS regression to empirically examine the effect of board of directors and ownership structure on corporate performance. Thus, based on the previous discussion, the following regression model was used to test the hypotheses in the empirical chapter:

Firm performance = f (board size, CEO duality, independent directors, female board member, Family-CEO, concentrated ownership, local institutional ownership, Foreign ownership, log firm size, firm age, leverage and industry control)

That is,

$$\text{Financial Performance} = \alpha + \beta_1 \text{BOSIZE} + \beta_2 \text{CEODU} + \beta_3 \text{INDTDIR} + \beta_4 \text{FEMALEBO} + \beta_5 \text{FAMCEO} + \beta_6 \text{OWNCON} + \beta_7 \text{OWNLOC} + \beta_8 \text{OWNFOR} + \beta_9 \text{FSIZE} + \beta_{10} \text{FAGE} + \beta_{11} \text{LEVERAGE} + \beta_{12} \text{INDUST} + \varepsilon$$

$$\text{ROA} = \alpha + \beta_1 \text{BOSIZE} + \beta_2 \text{CEODU} + \beta_3 \text{INDTDIR} + \beta_4 \text{FEMALEBO} + \beta_5 \text{FAMCEO} + \beta_6 \text{OWNCON} + \beta_7 \text{OWNLOC} + \beta_8 \text{OWNFOR} + \beta_9 \text{FSIZE} + \beta_{10} \text{FAGE} + \beta_{11} \text{LEVERAGE} + \beta_{12} \text{INDUST} + \varepsilon$$

And

$$\text{Tobin's } Q = \alpha + \beta_1 \text{BOSIZE} + \beta_2 \text{CEODU} + \beta_3 \text{INDTDIR} + \beta_4 \text{FEMALEBO} + \beta_5 \text{FAMCEO} + \beta_6 \text{OWNCON} + \beta_7 \text{OWNLOC} + \beta_8 \text{OWNFOR} + \beta_9 \text{FSIZE} + \beta_{10} \text{FAGE} + \beta_{11} \text{LEVERAGE} + \beta_{12} \text{INDUST} + \varepsilon$$

5.7.1 Pooled versus fixed or random effects models

Using panel data to investigate the relationship between independent and dependent variables may create some problems. This is simply because panel data modelling combines cross-section and time series observations; this means the problems related to both time series and cross-section data, such as autocorrelation and heteroscedasticity should be addressed along with some other problems of panel data, such as cross-correlation in individual units at the

same point in time (Gujarati, 2014). The most popular panel data regression models that are used by researchers as estimation techniques to deal with one or more problems are; (i) the fixed effects model and (ii) the random effects model. Greene (2003, p. 285) stated that the panel data model in its general structure can be written as follows:

$$Y_{it} = X'_{it}\beta + Z'_i\alpha + \varepsilon_{it}$$

X_{it} = dependent variables.

Y'_{it} = Independent variables.

β and α = Coefficients.

$Z'_i\alpha$ = An unobserved individual specific effect

i and t = Individual and time

ε_{it} = Error term

The firm fixed effects model, basically, provides a dummy variable for each firm in order to consider its impact over time. According to Kohler and Kreuter (2005) the fixed effects model;

“Shows the relationship between predictor and outcome variables within an entity (country, person, company, etc.). Each entity has its own individual features that may impact on the predictor variables. This is the rationale behind the assumption of the correlation between an entity’s error term and predictor variables. Fixed effect removes the effect of those time-invariant characteristics from the predictor variables”

In other words, under this model, the fixed term effect on the data is addressed by allowing the intercept to vary across different companies. However, the fixed effects model suffers from some limitations. For instance, a dummy variable for each firm, this will consume a lot of degrees of freedom, especially when the sample includes a large number of companies, we will have to provide N dummies, which leads to an increase in standard errors and has an effect on the tests statistical power (Gujarati, 2014). In addition, the existence of many variables in the model is more likely to increase the probability of having a problem with multicollinearity, thus affecting the accurate estimation of one or more variables (Gujarati, 2014). Moreover, the findings of the fixed effects model are valid only to the firms inside the sample and cannot be generalised to other firms outside the sample (Greene, 2012). Considering these limitations,

the researcher chooses the multivariate pooled OLS regression as a better model than the fixed effects model.

The second approach that can be used to deal with the problems related to panel data is the random effects model. The random technique is economical in terms of degrees of freedom, this partially suggests that the random approach is preferable to the fixed effects model as an estimation of N cross-section intercepts is not required. With this model, the sample is selected randomly from a large population and the intercept is a random variable representing the mean value of all intercepts (Gujarati, 2014). Therefore, according to Greene (2012) and Gujarati (2014), the random effects model is more suitable if the sample is randomly selected from a large population. However, in the study sample, firms are not selected randomly from population and the assumption that firms constitute a random sample is not rational. Thus, the multivariate-pooled OLS regression is selected as a more appropriate model for analysis than the random effect model.

Before running the analysis, the researcher must check the appropriateness of the data and the model through various tests to ensure that the underlying assumptions have not been violated, confirming that the findings of the study can be generalised. Brooks (2002) and Field (2009) summarised the assumptions that should be tested before the analysis as follows; Outliers, Multicollinearity, Heteroscedasticity, Autocorrelation and Dummy variables. The following section provides a brief review of these assumptions along with the measures to be conducted in case they are not satisfied.

5.8 OLS Regression Assumptions

The current study employs regression analysis in consideration that all corporate governance studies have used the OLS regression. Commonly, in social science studies, OLS regression is considered an ordinary language for analysis, and thus presenting and explaining the OLS regression outcomes indicates these studies are using similar language. Further, according to Stock and Watson (2003) OLS formulas are built into statistical software (e.g., SPSS, STATA and E-views) which means they can be used simply. Thus, the OLS regression through the Statistics and Data Software (STATA) is chosen to be used in this study.

Before using the regression analysis, several OLS assumptions need to be assessed to ensure that the results are not misleading; more details about these assumptions namely, outliers, normality, multicollinearity, heteroscedasticity, autocorrelation are discussed and explained in the following sections.

5.8.1 Dealing with Outliers and Normality of Data

First of all, after data has been taken from several sources and through different stages to find usable information for the OLS analysis and model estimation, a descriptive statistical for all firms is analysed, in which mean, standard deviation, minimum, maximum, skewness and kurtosis for all variables using STATA with the aim of identifying mistyped and missing values, incomplete information, and extreme values. In the process, some values were identified as mistypes, and thus the firm's annual report was double-checked to obtain the correct values. One of the major diagnoses required to be performed before using regression analysis was to determine any extreme values. An Outlier, or extreme value, is an extreme abnormal observation away from other observations, which inflates the error variance and shifts the analysis results. One of the popular methods used to detect outliers is the Mean \pm 3 standard deviation. To deal with outliers, the winsorisation option was used to ensure the results of the model are not affected by the extreme values. The data normality were also examined with descriptive statistics, especially using indices of Skewness and Kurtosis, which help to identify the extreme variables (see Table 6.1).

5.8.2 Tests of Multicollinearity, Heteroscedasticity and Autocorrelation

One of the important issues that needs to be addressed before using a multiple regression is multicollinearity, which occurs in the data when more than two predictor (independent) variables have a high or perfect correlation. In terms of high correlation (0.80 and more), this indicates the problem of multicollinearity, when the correlation is equal to one (perfect correlation) indicating the existence of singularity (Field, 2009). In both cases, action should be taken to correct these variables. Two common methods are used to detect the existence of multicollinearity; correlation coefficients and Variance Inflation Factor (VIF).

$$VIF = 1/(1 - R_i^2)$$

Where R_i^2 is the R^2 from a regression of predictor ($i=1, 2, 3, \dots, p$) against all remaining independent variables.

Numerous recommendations have been published in the literature regarding the acceptable levels of VIF. For instance, according to Hair et al. (1995) and Kennedy (2008) a value of 10 has been recommended as the maximum level of VIF. On the other hand, a maximum VIF value of 5 (i.e., Rogerson, 2001) and 4 (i.e., Pan and Jackson, 2008) has been used in previous studies.

Heteroscedasticity is another OLS assumption that occurs in the data if the variance of the model variables is not constant. When the squared residuals get larger or smaller as a given independent variable gets larger or smaller then perhaps we will experience heteroscedasticity, thus the model is not correctly specified. To check this assumption, the researchers use the Breusch-Pagan test for heteroscedasticity through Stata statistical software.

In addition to Heteroscedasticity, the autocorrelation problem needs to be tested. This problem occurs, simply, when error terms from different time periods are correlated. More specifically, if one observation's error term (ε_i) is correlated with another observation's error term (ε_i): $\text{Corr}(\varepsilon_i, \varepsilon_i) \neq 0$, we will suffer from the autocorrelation. One of the popular methods used to identify autocorrelation is the Durbin-Watson statistic. Velnampy (2011) suggests that the Durbin Watson statistic should be between 1.5 and 2.5 to indicate that there is no autocorrelation

5.8.3 Endogeneity and Causality

In empirical corporate governance research, both endogeneity and causality are a very serious issue that should be taken into consideration in the analysis. This is due to their impact on study results. In order to skip any ambiguous or unreliable outcomes, each of these problems will be considered. In a review article that discussed guidance on addressing endogeneity problems in empirical corporate finance, Roberts and Whited (2013) stated that “*endogeneity leads to biased and inconsistent parameter estimates that make reliable inference virtually impossible*”. The endogeneity occurs when a dependent variable is explained by unobserved variables in a model. In other words, the problem of endogeneity indicates the existence of variables that

affect corporate performance and governance mechanisms other than the explanatory variables (independent variables) included in the regression model.

With the existence of endogenous variables, the OLS regression may not be appropriate to estimating the parameters of each equation. As a result, OLS assumptions may fail during the estimation of the equations. Gujarati (1999, p. 493) noted that:

“In simultaneous equations regression models what is a dependent (endogenous) variable in one equation appears as explanatory variables in another equation. Thus, there is a feedback relationship between variables. This feedback creates the simultaneity problems rendering OLS inapplicable to estimate the parameters of equations individually. This is because the endogenous variable that appears as an explanatory variable in another equation may be correlated with the stochastic error term of that equation. This violates one of the critical assumptions of OLS that the explanatory variable is either fixed or non-random or if random, it is uncorrelated with error term”

Numerous empirical studies (see, for example, Morck et al., 1988; McConnell & Servaes, 1990; Al-Khouri, 2006; Andres, 2008; Gallucci et al., 2015) suggested that corporate governance mechanisms improve corporate performance, but these studies ignored endogeneity problems. While other studies investigated the relationship between corporate governance and corporate performance, they came to the same conclusion, but they also argued that the firm's high performance may affect the corporate governance structure. Silveira and Barros (2007, p. 9) argued that the major endogeneity issue in corporate governance studies suggests *“the possible presence of omitted variables and potential simultaneous determination of the variables of interest”*. Therefore, disregarding the endogeneity in the analysis can lead to an inefficient and unreliable coefficient leaving the results of the analysis inconsistent.

In addition to the endogeneity, causality, indicating the direction of influence between variables, is also a serious challenge in corporate governance studies. When a case of causality is in question, the corporate governance mechanisms impact on performance is often the other way around as firm performance is more likely to lead to changes in corporate governance

structures. For instance, Hermalin and Weisbach (1988) argued that independent directors are more likely to join boards after firm's experienced poor performance. In addition, Utama and Musa (2011) investigated the presence of causality between corporate governance mechanisms and bank performance in Indonesia. They found that bank performance does not affect corporate governance practice. Bhagat and Bolton (2008, p. 257) argued that:

“The relation between corporate governance and performance might be endogenous, raising doubts about the causality explanation. There is a significant body of theoretical and empirical literature in accounting and finance that considers the relations between corporate governance, management turnover, corporate performance, corporate capital structure, and corporate ownership structures. Hence, from an econometric viewpoint, to study the relationship between any two of these variables one would need to formulate a system of simultaneous equations that specifies the relationships among these variables”.

Considering the discussion above, using only the OLS regression will not provide consistent coefficients and clear conclusion for the model. The current study examines the influence of corporate governance mechanisms on the performance of family and non-family firms. So, there is a possibility of the existence of endogeneity and causality. In order to address such problems, three ways were used in the previous studies namely; fixed effects regression (Greene, 2012), a Two Stages Least Square (2SLS) (Imbens & Angrist, 1994), and simultaneous equation models (Demsetz & Lehn, 1985; Bohren & Odegaard 2001; Lins, 2003). In this thesis, the 2SLS regression was carried out using new external variables in order to check the nature of their impact on the model. These additional variables from outside the model are called instrumental variables (IV). In order to ensure that these additional variables are appropriate, there should be no correlation between these variables and error term. The 2SLS is an extension of the OLS regression method. It is used in two phases.

- Phases (1): A new variable is created using the instrumental variable.
- Phase (2): The estimated typical phase (1) values are used instead of the actual values of problematic predictors for computing the OLS model to respond to interest.

5.8.4 Dummy Variables Analysis

As mentioned previously, differences in firm's performance can also result from operating in different industry sectors. This means the importance of adding the industry control variable in the regression model (Anderson & Reeb, 2003). Therefore, dummy variables were added to the empirical model, as shown in table 5.5 to investigate the impact of industry variables on firm performance and whether the relationship between corporate governance variables used in this study could also be determined by the industry. Hence, the new OLS regression tested is:

$$\text{Financial Performance} = \alpha + \beta_1 \text{BOSIZE} + \beta_2 \text{CEODU} + \beta_3 \text{INDTDIR} + \beta_4 \text{FEMALEBO} + \beta_5 \text{FAMCEO} + \beta_6 \text{OWNCON} + \beta_7 \text{OWNLOC} + \beta_8 \text{OWNFOR} + \beta_9 \text{FSIZE} + \beta_{10} \text{FAGE} + \beta_{11} \text{LEVERAGE} + \beta_{12} \text{INDUST} + \beta_{13} \text{INDUST} + \dots + \beta_{29} \text{INDUST} + \varepsilon$$

As financial performance is measured by ROA and Tobin's Q. Two separated equations are formulated as follows:

$$\text{ROA} = \alpha + \beta_1 \text{BOSIZE} + \beta_2 \text{CEODU} + \beta_3 \text{INDTDIR} + \beta_4 \text{FEMALEBO} + \beta_5 \text{FAMCEO} + \beta_6 \text{OWNCON} + \beta_7 \text{OWNLOC} + \beta_8 \text{OWNFOR} + \beta_9 \text{FSIZE} + \beta_{10} \text{FAGE} + \beta_{11} \text{LEVERAGE} + \beta_{12} \text{INDUST} + \beta_{13} \text{INDUST} + \dots + \beta_{29} \text{INDUST} + \varepsilon$$

And

$$\text{Tobin's Q} = \alpha + \beta_1 \text{BOSIZE} + \beta_2 \text{CEODU} + \beta_3 \text{INDTDIR} + \beta_4 \text{FEMALEBO} + \beta_5 \text{FAMCEO} + \beta_6 \text{OWNCON} + \beta_7 \text{OWNLOC} + \beta_8 \text{OWNFOR} + \beta_9 \text{FSIZE} + \beta_{10} \text{FAGE} + \beta_{11} \text{LEVERAGE} + \beta_{12} \text{INDUST} + \beta_{13} \text{INDUST1} + \dots + \beta_{29} \text{INDUST18} + \varepsilon$$

Table 5.5: Industry Codes

Industry	Code
Health Care	1
Educational	2
Hotels and Tourism	3
Transportation	4
Technology and Communication	5
Media	6
Utilities and Energy	7
Commercial	8
Pharmaceutical and Medical	9
Chemical	10
Paper and Cardboard	11
Printing and Packaging	12
Food and Beverages	13
Tobacco and Cigarettes	14
Mining and Extraction	15
Engineering and Construction	16
Electrical	17
Textiles, Leathers and Clothing's	18

5.9 Summary

In this chapter, a detailed description of the data selection process and methodology used to conduct the research was presented. This study adopts a well-established definition for family firm where the family holds at least 10% of the company's shares with one or more of family member on the company board, along with the explanations of the independent and dependent with control variables used in this research. This chapter also provides the empirical design, and all OLS assumptions including, endogeneity and causality.

The next chapter presents the discussion of the findings from quantitative data (Annual report data and Thomson One database), with the aim of testing the main hypotheses developed and listed in the literature chapter.

Chapter Six: Results and Discussion

6.0 Introduction

Following the description of the data and models in chapter five, this chapter provides the descriptive statistics for the data used in this thesis. The main purpose is to quantitatively analyse sample data, for example; measures of central tendency such as mean, max and min and variability statistics such as standard deviation and normal distribution of data such as skewness and kurtosis, to make a simple comparison between variables. The full table of the descriptive statistics of this study is given in appendix 5. For clarity, we will extract and provide descriptive statistics separately for each variable from the main table. The descriptive statistics present some of the main features of the data, it will not be the main statistical findings. The major results of this study will be drawn from regression analysis, where all relevant variables are included in the model and tested.

The impact of corporate governance mechanisms on the performance of family and non-family firms will be examined using different types of regressions. This allows the researcher to realise the capability of the different regressions to capture the impact of corporate governance on corporate performance. These different regressions mainly aim to examine the link between board of directors and ownership structure with corporate performance, based on ordinary least square regression and two stage least square. However, this study measures the performance of companies through ROA and Tobin's Q, which have been used extensively in previous literature to measure corporate performance. The use of these two measures makes the results of this study comparable to those of previous studies in developed and developing countries.

The chapter begins by presenting the results of the descriptive statistics for dependent data, independent data and control variables data. Section 6.2 discusses the normality of data. Section 6.3 reports the results of comparing means between family and non-family firms and the p-value for the mean differences. In section 6.4 a Pearson correlation matrix of all variables will be conducted for the whole sample, family firms and non-family firms. Section 6.5 presents and discusses the multivariate analysis. Section 6.6 discusses the findings for regression models on corporate performance and in Section, 6.7 endogeneity is considered. Finally, section 6.5 summarises the chapter.

6.1 Data and Descriptive Statistics

Tables 6.1, 6.2, 6.3, and 6.4 present the findings for the descriptive statistics of corporate performance data, board of directors, ownership, and control variables, respectively. The results presented contain variables that have been winsorised to prevent the effect of extreme values on the results of the data. Also, non-logical numbers, especially in theory, were excluded from the study sample (for example, one value of concentrated ownership and one value of the independent non-executive directors were eliminated as they exceeded 100% of the capital and the proportion of directors, indicating an error in writing). It is also prudent to clarify how the data was managed in term of outliers and missing values before starting the explanation for the descriptive statistics numbers of the variables/data.

There are two ways to address missing values; the first method is to create fake values, while the second method preserves missing values and handles the issue in the analysis. Creating fake values instead of the missing values has not been used for several reasons, among others, fake values can lead to incorrect representation of the sample, as well as causing serious problems for the results of the regression analysis. However, firms with missing values were not dropped from the final sample in order to maintain a representative sample. The use of statistical software (STATA) to analyse the data and generate the results has limited the problem of missing values since it can automatically calculate these values, correct results accordingly, and minimise the effect of missing data on model outcomes and explanations.

In relation to outliers, which impact on the results of the analysis in different ways, such as increasing confidence intervals, bias parameter estimates and amplify error variance. There are several options to reduce these problematic effects, for example, winsorising the extreme values or removing such values (Trimming). Since the trimming option can cause the emergence of new extreme values after the deletion of the initial extreme values and can produce important observations that might affect the results and interpretations of the model, the winsorisation option was used to ensure the results of the model are not affected by the extreme values.

The winsorisation will be for dependent variables and control variables for many reasons. First, to generate better statistical results since the extreme values could have a negative effect on the

regression analysis. Second, previous studies related to corporate governance have ruled out extreme values (e.g. Black et al. 2006; Durnev and Kim, 2005; Chhaochharia and Grinstein, 2007). Finally, independent variables used in this thesis, in general, have less outliers than other variables. Therefore, following the literature, winsorisation has not been used with independent variables (e.g., Durnev and Kim, 2005; Klapper and Love, 2004). This study follow Shumway (2001) by placing all the observations above 99% of each variable for that value; and all values below 1% of each variable were placed in the same way.

Corporate Performance Data

This section starts with the descriptive statistics for the dependent (output) variables: the accounting-based measures of ROE, and the market-based measure of Tobin's Q of corporate performance. The higher value of performance measures used in this study will indicate a high level of corporate performance. Table 6.1 below summarises the descriptive statistics on both financial performance measures (ROA and Tobin's Q) of the sample firms. The table reports that the minimum value of ROA is -17.3% while the highest value is close to 14% with an average of 2.92% for the overall sample. As regards to Tobin's Q, the figures show that the minimum value of Tobin's Q is -0.0128, while the highest value is 0.058, with an average of 0.017 for the overall sample firms.²⁰ Finally, these figures show that corporate performance measured by ROA and Tobin's Q are somewhat positive regarding corporate governance practice in firms listed in the ASE.

Table 6.1: Descriptive statistics– Financial Performance Measures

Performance Measures	Mean	Min	Max	Std. Dev.	Skewness	Kurtosis
ROA (%)	2.92	-17.3	13.6	5.29	-0.807	6.44
Tobin's Q	0.017	-0.0128	0.058	0.033	0.212	1.055

The current study contained a sample of 103 non-financial companies listed in the ASE. The data sample was collected for seven years from 2009 to 2015. The descriptive statistics for corporate financial measures show that the presented data are not normally distributed. This

²⁰As mentioned in Table 6.1, Tobin's Q is calculated as the market value of equity and total liabilities divided by the equity book value. It should be noted that the market value of equity will generally be greater than its book value when the economy grows well. However, if the economy slows, the decline in the stock market may cause the market value of equity to fall below their book value, so Tobin's Q will fall below 0.

outcome is confirmed by the standard kurtosis statistics, where the standard kurtosis of ROA is 6.44, which exceeds the normality range of ± 2.0 . According to George and Mallery (2010) values for skewness and kurtosis between -2 and +2 are sufficient to confirm normal distribution. Therefore, more attention should be given to analysing these non-parametric data and interpreting the results.

Board of Directors Data

Table 6.2 below reports the descriptive statistics for variables relating to board of directors. The statistics reveal that the mean board size for the whole sample of the 103 listed Jordanian companies is 8.14, with a minimum of 5 and a maximum of 13 members on the board. This average is in line with the Jordan Corporate Governance Code 2006, which suggests that the size of the board should not be less than five and not more than thirteen. Jensen (1993) and Lipton and Lorsch (1992) recommend that a board size should be between seven and eight members; because large boards are less likely to work effectively and become difficult to agree on certain outcomes (i.e. discourage decision-making because of uncooperative decisions among many parties). Many studies indicate that the average number of directors on firms' boards is eight, such as Elsayed (2007) and Zainal Abidin et al. (2009). The Jordanian board size mean is similar to findings from studies of some developing countries. For instance, the mean board size of Egyptian and Malaysian board firms is eight directors (Elsayed, 2007; Haniffa and Hudaib, 2006). However, it is larger than that of Australian and Brazilian firms, where the average board size is 6.6 and 7.40, respectively (Kiel and Nicholson, 2003; Schiehl et al., 2013). Whereas, it is smaller than that of UK and US firms, averaging 10.7 and 11.45 respectively (Weir and Laing, 2001; Bhagat and Block, 2002).

Table 6.2: Descriptive statistics – Board of Directors

BoD Variables	Mean	Min	Max	Std. Dev.	Skewness	Kurtosis
BOSIZE	8.14	5	13	2.201	0.376	2.570
CEODUA	0.181	0	1	0.385	1.651	3.725
INDTDIR	0.914	.6	1	0.084	-1.600	6.801
FEMABO	0.282	0	2	0.560	1.858	5.407

In terms of CEO duality, the mean percentage of CEO duality is 18.1 per cent, which means that 81.9 per cent of Jordanian companies separate the position of the chairman of the board of directors from the CEO lessening the effect of the CEO/Chairman on the board. Jensen (1993)

argues that combining the two positions in the hands of one person can lead to greater agency problems from ineffective monitoring of the CEO by the board; in addition, OECD (2004) and Cadbury Report (1992) suggest that splitting the two positions is a sign of good corporate governance. Therefore, the non-existence of CEO duality in the Jordanian listed firm implies that they are fulfilling the recommendations of the Jordanian CGC (2006) which prohibits combining these two roles.

Regarding the independent directors, we can see in table 6.2 an average of 91% of boards are categorised as ‘highly independent board of directors’. This proportion is above the one third independent non-executive directors’ requirement suggested by the Jordan Corporate Governance Code (JCGC). Furthermore, the minimum value of 60% for the variable is still above the JCGC requirement. Rhodes et al., (2000) stated that independent directors do not have conflicting interests with shareholders due to financial independence. Belkhir (2009) argued that the independent directors can help reduce the risk of moral hazard through their oversight role on managers, as well as alleviating the problem of information asymmetries by ensuring disclosure of a wide range of risks and related information to shareholders. The Cadbury Report (1992) stresses the importance of having independent directors who, *“should bring an independent judgment to bear on issues of strategy, performance and resources including key appointments and standards of conduct”* (p.12). Interestingly, the percentage of independent non-executive directors’ in Jordanian boards is relatively large (for example, compared to other countries: UK mean = 47%, Weir and Laing, 2001; US mean = 78%, Coles et al., 2008; Malaysia mean = 50%, Haniffia and Hudaib, 2006). Thus, the mean composition of boards having 91% of independent directors’ means that Jordanian firms tend to have at least seven independent directors.

The next variable in the list is FEMABO. On average, 28% of directors are female members, with a minimum of 0 and a maximum of 2 members on the board. According to an IFC report (2015) out of 237 public listed companies in 2012, only 52 had women on their board meaning 3.54 percent of board members in Jordanian companies are women. While, the percentage of females in top positions in developed countries is 23 percent and may reach 30 percent in other countries like the Philippines (World Bank Group, 2015). Therefore, it can be noted that the female representation in Jordanian companies has improved. Therefore, it is worthwhile

studying now how the presence of female member on the board is contributing to better and more diverse perspectives, which, in turn, improve decision-making process, and thus enhance firm performance.

Regarding the standard skewness, the presented data are normally distributed. The standard skewness of board of directors' variables does not exceed the normality range of ± 2 (George and Mallery, 2010). However, it is noted that the standard kurtosis for CEODUA, INDTDIR and FEMABO exceeded the range of ± 2 (see Table 6.2), signifying that this data is not normally distributed. Accordingly, a robust analysis of any hypothesis testing needs to be done for the whole data set.

Ownership Structure Data

Table 6.3 below shows the descriptive statistics of the ownership structure for the full sample. The statistics reveal that the ownership of firms in Jordan is highly concentrated with an average of 63.8%. This result is comparable to the 61.96% average concentrated ownership in Saudi Arabian firms reported by (Al-Bassam et al., 2015) with their sample size of 80 listed firms in the Tadawul Stock Exchange. In addition, the average shows that the percentage of concentrated ownership is higher in Jordan than in developed countries, as discussed previously. Lskavyan and Spatareanu (2008) reported the mean of 5%, 21% and 41% concentrated ownership of British, Polish and Czech firms, respectively, while Bloom and Van Reenen's (2007) reported only 10% for a sample of US-listed firms. This is logically acceptable because most of the company's shares in Arab countries are owned by one family or a few shareholders.

Table 6.3: Descriptive statistics– Ownership Structure

Ownership Variables	Mean	Min	Max	Std. Dev.	Skewness	Kurtosis
OWNCON	0.638	0.168	0.988	0.217	-0.418	2.370
OWNLOC	0.388	0	0.952	0.292	0.306	1.952
OWNFOR	0.167	0	0.904	0.220	1.802	5.691

Furthermore, on average, share ownership by local institutional investors' accounts for about 39% of Jordanian firms. In recent years, a high percentage of domestic ownership has been seen in Jordan as compared to other markets in MENA, mainly due to ongoing economic

liberalisation. For instance, according to World Bank Group (2013), privatisation²¹ as part of economic reform in Jordan has proved particularly successful in the Middle East. Further, the local ownership is high since the government strongly encouraged privatisation to support economic growth. But the participation of local institutional investors is still not in every single firm as shown in Table 6.3.

Foreign ownership, on average, accounts for only a small fraction (17%) of the shares of the 103 firms in the sample, with a maximum of 90.4 per cent. Nevertheless, the average contribution of foreign investors is significantly lower because foreign investors do not appear in all companies, and in fact the contribution of these investors to companies is limited. The statistics show that these investors are somewhat selective in companies they look to invest in. Consequently, it is necessary to find in the regression analysis whether shareholdings from various stakeholders affect the performance of companies differently.

Although the involvement of non-Jordanian investors is not widespread in Jordanian firms, foreigners shares participation actually constitute a considerable part of the daily stock trading in ASE. For example, on average, the daily trading participation disclosed in the ASE official website for the month of July 2011 reports that Non-Jordanians represented (48.3) of the total trading value, (36.2%) of which are owned by Arab investors, and (12.1%) by Non- Arabs. Therefore, this type of investors' is observed as a vital group influencing market sentiment.

With respect to the standard skewness, the presented data are normally distributed. The standard skewness of ownership variables does not exceed the normality range of ± 2 (George and Mallery, 2010). However, it is noted that the standard kurtosis for OWNLOC and OWNFOR exceed the range of ± 2 (see Table 6.3), noting that these data are not normally distributed. Accordingly, a robust analysis of any hypothesis testing needs to be done for the whole data set.

The following section presents the descriptive statistics for another set of data that are applied throughout the regression analysis - control variables.

²¹Shirley (1992) defined privatisation as the transfer of ownership of assets to the private sector.

Control Variables

Table 6.4 below reports the descriptive statistics for the control variables; total assets, debt ratio and age of firm. The average of total assets is 69,260,717, ranging from a minimum of 4,698,481 million to a maximum of 176, 578, 43 million. The mean of leverage is 32.7% and the average age of firms is 20.62 years, which is younger than Malaysian firms with an average of 28.8 years as reported by Claessens et al. (2000). It also shows that Jordanian firms have a smaller mean firm age than those of Germany, with an average of 82 years, Andres (2008) reported.

Table 6.4: Descriptive statistics– Control Variables

Variable	Mean	Min	Max	Std. Dev.	Skewness	Kurtosis
TA (\$ Millions)	69,260,717	4,698,481	176,578,43	8758538	5.623	37.44
FAGE (Years)	20.62	3	58	14.83	1.023	3.196
LVEGE (%)	0.327	0.017	0.906	0.223	0.854	3.150

6.2 Normality of Data

This chapter shows the data analysis using parametric tests, such as the independent measures t-test, Pearson correlation coefficient analysis and OLS regression analysis. However, these statistical tests suppose a normally distributed study sample. Consequently, it is important to conduct a test the normality of the data in relation to the variables that need to be modelled. According to Gravetter and Wallnau (2000), normality requires *“the data frequency to be distributed in the approximate shape of a symmetrical, bell shaped curve”* (p.52).

Prior studies have used several methods to test the normality of data including; graphically (via histograms, box and QQ plots), statistical tools (such as, Skewness and Kurtosis) and statistical tests (such as, Jarque-Barre, Kolmogorov-Smirnov, D’Agostino-Pearson). To check the normality, this thesis uses the two main statistical tools namely, skewness and kurtosis for all the variables. If the value of the skewness for the data is between -1.96 and +1.96 and the level of the kurtosis for the data is between -2 and +2 this is an indication that the data is normally distribution. Based on the tables, in order to improve the normality of data, particularly the value of variables, namely FSIZE (firm size) and FAGE (the firm’s age since establishment) is transformed into natural logarithmic values to further achieve the normality of data.

The figures in the table above reveal that most variables are positively skewed, meaning the majority of the observations are located to the right of the distribution, except for INDTDIR; CEOFAM; OWNCON and ROA, where the variables are negatively skewed. In addition, the results also show that the values of kurtosis for some variables exceed the normality range of ± 2 . This implies that the sample data of this study are not normally distributed.

However, with large sample sizes (n more than 30 or 40), the question of the normality should not cause significant problems (Ghasemi & Zahediasl, 2012). Altman and Bland (1995), state that when the sample consists of hundreds of observations, the researcher can ignore the data distribution. That is, *“In practice, no matter what the underlying probability distribution is, the sample mean of a sample size of at least 30 observations will be approximately normal”* (Gujarati, 2006, p.88). Therefore, the current study expects a level of abnormality in some of the data. Moreover, according to the central limit theorem (CLT), (i) if the sample data is almost normal then the distribution of the sample will also be normal; (ii) if the sample data is over 30 observations then the distribution of the sample tends to be normal (Gujarati, 2006); and (iii) random sampling means for any distribution will have a normal distribution (Elliott & Woodward, 2007); so we can employ parametric tests even when the sample data is not normally distributed. Despite this, to fulfil with OLS assumptions, the ROA and Tobin’s are transformed.

6.3 Comparing the Means between Family and Non-family Firms

A step to be taken before regression analysis is an independent t-test to ascertain whether the differences of means for all variables used in the analysis between family and non-family firms are statistically significant. Table 6.5 below presents the means for all selected variables for family and non-family firms. It also presents the mean difference for all data observations, standard error, t-test, and the p-value for the mean differences between family and non-family firms.

Table 6.5: Comparing the Means between Family and Non-Family Firms

Variables	Family Mean	Non-Family Mean	Diff-Mean	Std. Error	t	Sig (2Tailed)
<i>Panel A</i>						
BOSIZE	7.949	8.379	0.431	0.164	2.628	0.008***
CEODUA	0.232	0.121	-0.110	0.028	-3.869	0.000***

INDTDIR	0.916	0.911	-0.004	0.006	-0.784	0.043**
FEMABO	0.318	0.240	-0.078	0.041	-1.882	0.060*
<i>Panel B</i>						
OWNCON	0.654	0.618	-0.035	0.016	-2.196	0.028**
OWNLOC	0.276	0.521	0.244	0.019	12.33	0.000***
OWNFOR	0.112	0.233	0.120	0.015	7.604	0.000***
<i>Panel C</i>						
FSIZE	7.224	7.514	0.290	0.041	6.916	0.000***
FAGE	19.32	22.16	2.836	1.105	2.566	0.010***
LVEGE	0.293	0.367	0.075	0.160	4.529	0.000***
<i>Panel E</i>						
ROA (%)	0.049	0.582	0.533	0.395	0.348	0.178
Tobin's Q	-0.012	0.532	0.0659	0.003	213.5	0.000***

*Mean is Significant at 10%. **Mean is Significant at 5%. *** Mean is Significant at 1%.

Basically, the outcomes of an independent t-test inform us of the strength of the association of any two variables. Where the correlation value is closer to 1 or (-1), the two variables are more relevant. The mean difference is calculated by subtracting the mean for the variable in the family firms from the mean for the same variable in non-family firms.

As indicated above in table 6.5; all variables are statistically significant based on the differences between variable means except ROA. However, there is statistically significant difference between the means in family firms and the means in non-family firms in these variables. Thus, the null hypothesis is rejected.

The following sections offer a descriptive statistical analysis of these variables in family and non-family firms based on the results in Table 6.5.

6.3.1 Board of Directors

In Panel A, a statistical comparison of board of directors' variables means is made between family firms and non-family firms. The mean for the board size (BOSIZE) for family firms is slightly different from non-family firms, 7.94 and 8.37 respectively. The reason behind the small size of the board of family firms, suggests Ward (1991), is that family firms prefer smaller boards since the individual commitments are subject to dispersion in larger boards. Navarro and Anson (2009) states that families may be reluctant to increase the size of the board in order

to maintain control, and facilitate communication when making decisions, and thus reduce the problem of free-riding.

Also, CEO duality in family firms can improve firm performance by having the same person hold both the CEO and chairman in an organisation. The table shows that the mean of CEO duality for family firms is 23% compared to 12% for non-family firms and the difference is statistically significant at the 1% level. The comparison is consistent with the findings by Bartholomeusz and Tanewski (2006) and Chen et al. (2005) that CEO duality is more likely in family firms than in non-family firms.

Regarding independent directors, both family and non-family firms have roughly the same mean percentage, 91.6% and 91.1 % respectively. The differences are statistically significant at the 5% level, which means that Jordanian firms have a higher percentage of independent directors. Thus, the mean composition of boards having 91% of independent directors' means that Jordanian firms whether family firms or non-family firms tend to have at least seven independent non-executive directors on their board. Hence, the board of directors with more executive directors is more likely to approve board decisions without challenging each other at the expense of shareholder interests, as argued by Fama (1980).

The figures also show a difference in the means of female board members between family firms and non-family firms, 31.8% and 24% respectively. The mean differences are statistically significant at the 10% level. The higher FEMABO in family firms might be caused by the founders appointing their daughters and wives on the boards. Since their appointment is consistent with the increased demand for family dominance (Boubaker and Nguyen, 2016).

6.3.2 Ownership Structure

The data in Panel C of the table refers the differences in ownership structure between family firms and non-family firms. We can note that the average of concentrated ownership in family firms is 65.4%, which is higher than the average concentrated ownership of 61.8% for non-family firms. This is logically acceptable because most equity in family firms is owned by one family. The mean differences are statistically significant at the 5% level.

In contrast, non-family firms have a higher proportion of shareholdings by OWNLOC (local companies and government ownership). On average, 52% of shares in non-family firms are owned by domestic institutional investors compared to an average of 27.6 in family firms and the mean differences is statistically significant at the 1% level. Furthermore, we can notice that in our sample, the mean of foreign ownership in non-family firms is 23.3%, which is higher than family firms, where it is only 11.2%. This implies that institutional investors regardless of whether foreigners or locals prefer non-family firms to family firms when investing their money in Jordanian firms. As explained by Fernando, Schneible and Suh (2014), principal-principal problems are more prevalent in family firms. They argue that institutional investors are better able to recognise this problem in family businesses implying that family firms are less attractive to institutional investors who are now an increasingly important source of capital.

6.3.3 Control Variables

Panel D reveals that non-family firms on average are slight larger in size, as measured by the logarithm of the total assets, compared to family firms. The natural logarithm transformation is applied to obtain the normality distribution. The mean difference for non-family firms and family firms is statistically significant at the 1% level. According to Al-Haddad et al. (2011) study a sample of 44 Jordanian firms listed in ASE over the period 2000- 2007. They found that the firm size means reached (7.01). It is indicated from the means of firm size in our sample, where non-family firms are larger than family firms that the size of the firms in general increased through the study period; this means that overall Jordanian firms are growing slowly.

Non-family firms are also comparatively older than family firms with an average age of 22.1 years compared to 19.3 for family firms. The means of firm size and age suggest that family firms need more time to expand their business from a small independent firm to a business group. The table also reveals the means difference of leverage between family firms and non-family firms. In this study, we measure leverage by the long term debt to total assets proxy. The finding reveals that non-family firms have a higher mean leverage than family firms, 36.7% and 29.3% respectively. Hence, we expect higher debts for non-family firms in order to monitor and enhance corporate performance through limiting individual consumption, as Jensen (1986) claimed. While in family firms we expect lower debts in order to prevent debt default risk.

6.3.4 Financial Performance Measures

Contrary to the findings of significant differences as reported in Table 6.6, we can see that there is a lack of significant differences in the accounting performance (ROA) of family and non-family firms. In Panel E, the averages of ROA for family firms are 4.90% and 5.82% for non-family firms, indicating that non-family firms are more gainful than non-family firms. Except for the mean differences in the ROA, the differences in the mean of Tobin's between these two types of firms are statistically significant. However, Tobin's Q for family firms at -0.012 is lower than of 0.532 for non-family firms. Further, we can note that the Tobin's Q mean value is less than 1, in both types of firms, suggesting that the market failed to create good shareholder value. This result largely reflects that the performance measurement correlates with the firm size variable.

6.4 Correlation Coefficient Matrices

This section presents the correlation between the corporate governance mechanisms and financial performance variables by using the Pearson correlation test (See Tables 6.4.1, 6.4.2 and 6.4.3). Before regression analysis, the correlation coefficient analysis is conducted to test the relationships between the dependent and independent variables (Rahman & Ali, 2006). Further, it is important in order to check for possible multicollinearity "one-to-one relationship" between corporate performance and the explanatory variables in empirical models. Table 6.4.2 presents the Pearson correlation coefficients for non-family firms, and Table 6.4.3 presents the Pearson correlation coefficients for family firms in the study.

The tables state the correlation matrix between the explanatory variables for the full sample, family firms and non-family firms. In general, no multicollinearity is observed between them. Only a few variables reveal relatively higher correlations, but still, do not correlate more than 0.8 or 0.9. However, Variance Inflation Factors (VIFs) is calculated for these variables and any serious multicollinearity as described in the VIF value is handled appropriately.

Table 6.6: Pearson Correlation Coefficients for all firm variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1)BOSIZE	1												
2)CEODUA	0.011 0.761	1											
3)INDTDIR	-0.064 0.085	-0.330** 0.000	1										
4)FEMABO	0.148** 0.000	0.102** 0.000	-0.17** 0.000	1									
5)CEOFAM	-0.071 0.053	0.169** 0.000	0.016 0.663	0.168** 0.000	1								
6)OWNCON	-0.197** 0.000	-0.144** 0.000	0.102** 0.005	0.113** 0.002	0.132** 0.000	1							
7)OWNLOC	0.084* 0.024	-0.207** 0.000	0.179** 0.000	-0.007 0.845	-0.391** 0.000	0.397** 0.000	1						
8)OWNFOR	-0.011 0.749	-0.053 0.154	0.051 0.169	-0.030 0.419	-0.241** 0.000	0.160** 0.000	0.380** 0.000	1					
9)FSIZE	0.305** 0.000	-0.083* 0.025	-0.026 0.483	0.088* 0.014	-0.190** 0.000	0.066 0.076	0.238** 0.000	0.252** 0.000	1				
10)FAGE	0.146** 0.000	-0.140** 0.000	0.058* 0.027	-0.066 0.076	-0.147** 0.000	-0.064 0.0841	0.159** 0.000	0.026 0.476	0.225** 0.000	1			
11)LVRGE	-0.213 0.567	-0.072 0.051	0.071* 0.046	-0.24** 0.000	-0.165** 0.000	-0.107** 0.004	0.105** 0.004	0.054 0.146	0.365** 0.000	0.156** 0.000	1		
12)ROA	0.052 0.156	-0.046 0.215	0.009 0.798	0.137** 0.000	-0.013 0.712	0.151** 0.000	0.123** 0.000	-0.024 0.509	0.156** 0.000	0.142** 0.000	-0.199** 0.000	1	
13)TQ	0.094* 0.011	-0.133** 0.000	0.020* 0.044	-0.089* 0.013	-0.893** 0.000	-0.108** 0.003	0.390** 0.000	0.275** 0.000	0.238** 0.000	0.085* 0.022	0.175** 0.000	0.039 0.288	1

**. Correlation is significant at the 0.01 level, *. Correlation is significant at the 0.05 level.

Table 6.7: Pearson Correlation Coefficients for non-family firm variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1)BOSIZE	1											
2)CEODUA	-0.048 0.384	1										
3)INDTDIR	-0.022 0.681	-0.363** 0.000	1									
4)FEMABO	0.256** 0.000	-0.028 0.606	-0.14** 0.008	1								
5)OWNCON	-0.094 0.086	-0.149** 0.006	-0.060 0.277	-.275** 0.000	1							
6)OWNLOC	-0.043 0.435	-0.167** 0.002	0.197** 0.000	-0.007 0.896	0.745** 0.000	1						
7)OWNFOR	-0.141** 0.010	0.083 0.129	-0.089 0.104	-0.100 0.068	0.285** 0.000	0.345** 0.000	1					
8)FSIZE	0.297** 0.000	-0.102 0.062	0.079 0.150	0.038 0.489	-0.030 0.584	0.144** 0.008	0.234** 0.000	1				
9)FAGE	0.174* 0.015	-0.088 0.107	0.108* 0.049	-0.020 0.707	0.010 0.847	0.119* 0.029	0.014 0.798	0.507** 0.000	1			
10)LVRGE	0.218** 0.000	-0.152** 0.005	0.109* 0.046	-.272** 0.000	-0.241** 0.000	-0.052 0.342	0.054 0.326	0.505** 0.000	0.262** 0.000	1		
11)ROA	0.092 0.093	-0.065 0.239	-.016** 0.008	0.218** 0.000	0.203** 0.002	0.161** 0.003	-0.040 0.468	0.186** 0.000	0.181** 0.000	-0.273** 0.000	1	
12)TQ	0.071 0.196	0.097 0.079	0.059 0.288	-.236** 0.000	-0.935** 0.000	-.712** 0.000	-.265** 0.000	0.020 0.718	-0.017 0.747	0.172** 0.001	-0.16** 0.003	1

** . Correlation is significant at the 0.01 level, * . Correlation is significant at the 0.05 level.

Table 6.8: Pearson Correlation Coefficients for family firm variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1)BOSIZE	1												
2)CEODUA	0.071 0.160	1											
3)INDTDIR	-0.135** 0.007	-0.380** 0.000	1										
4)FEMABO	0.143** 0.004	0.161** 0.001	-.289** 0.000	1									
5)CEOFAM	0.061 0.227	0.152** 0.002	.179** 0.000	0.143** 0.004	1								
6)OWNCON	-0.274** 0.000	-0.174** 0.000	.276** 0.000	-0.065 0.196	0.097 0.053	1							
7)OWNLOC	0.116* 0.021	-0.165** 0.001	.238** 0.000	0.038 0.448	0.084 0.096	0.213** 0.000	1						
8)OWNFOR	0.101* 0.045	-0.122* 0.012	.364** 0.000	0.066 0.192	0.143** 0.004	-0.007 0.880	0.186** 0.000	1					
9)FSIZE	0.342** 0.000	-0.016 0.742	-0.16** 0.000	0.212** 0.000	0.214** 0.000	0.226** 0.000	0.164** 0.001	0.131** 0.009	1				
10)FAGE	0.115* 0.022	-0.166** 0.000	0.055 0.275	-0.079 0.011	-0.157** 0.001	-0.133** 0.008	0.141** 0.005	-0.066 0.188	-.128** 0.010	1			
11)LVRGE	-0.243** 0.000	0.021 0.674	0.054 0.286	-.206** 0.000	0.040 0.429	0.057 0.256	.122* 0.015	-0.098 0.050	0.145** 0.003	0.015 0.755	1		
12)ROA	-0.013 0.789	0.157** 0.001	-.133** 0.008	0.241** 0.000	0.131** 0.009	0.137** 0.006	0.009 0.855	0.114* 0.023	0.327** 0.000	-.070** 0.000	-0.178** 0.000	1	
13)TQ	0.189** 0.000	0.187** 0.000	-.302** 0.000	0.020 0.682	-0.133** 0.008	-0.908** 0.000	-.266** 0.000	-0.057 0.256	-0.226** 0.000	0.080 0.112	-0.055 0.275	-0.098 0.051	1

** . Correlation is significant at the 0.01 level, * . Correlation is significant at the 0.05 level.

Using the analysis above, table 6.7 and 6.8 reveals that the concentration ownership has a significant and positive correlation with ROA, in family and non-family firms, at the 1% significance level. The coefficient indicates that if a family or a small number of shareholders continues to own and keep the firm shares, this will adversely affect the performance of the firm, perhaps because one of the most effective way to reduce conflicts of interests and maximise value in firms is to increase the proportion of concentrated ownership of the firm's shares, as argued by Ke and Isaac (2007). Local institutional investors are significantly negatively related to performance (Tobin's Q), suggesting that their ability to control and contribute to strengthening corporate governance is not effective, in family and non-family firms. As for foreign ownership, it is significantly negatively related to Tobin's, in non-family firms. While, there are significant positive correlations between foreign investors' and ROA in family firms, with a value of 0.114. This means that foreign investors have an impact on firm performance.

Table 6.7 and 6.8 also shows that there is a positive correlation between CEO duality and ROA and Tobin's Q, in family firms, suggesting that when the positions of CEO and chairperson are in the hands of one person, that person is likely to participate and assist in the decision-making process. Conversely, the analysis reveals that CEO duality does not influence financial performance of non-family firms. For independent non-executive directors, the correlation analysis further suggests a significant and negative relationship between independent directors and ROA, in family and non-family firms, with correlations of -.133 and -0.016 respectively, which means that independent directors have a negative influence on performance, which is not expected. However, these results do not reflect the full results of the study, which need to include more comprehensive statistical analyses. On the other hand, these results can be used as a comparator with the conclusion of a collective analysis of all the results of the statistical methods used. These relationships need to be tested again in the multivariate analysis, as many other factors need to be accounted for into. We can see clearly that there is a negative correlation between leverage and ROA, in family and non-family firms, that shows how efficiently the firm is using its current assets. The correlation value is -0.178 and -0.273 respectively. The tables also reveal that firm size was positively and significantly correlated with performance, at the 1% significant level, in both family and non-family firms.

6.5 Multivariate Analysis

This section explains the main results which were drawn from pooled-OLS regression analysis of the relationship between financial performance as a dependent variable measured by ROA, Tobin's Q and corporate governance mechanisms as independent variables comparing family and non-family firms. However, before discussing the results, some assumptions (such as, multicollinearity and heteroscedasticity) need to be tested.

Firstly, we consider the problem of multicollinearity which indicates that two or more variables have a high or perfect correlation (Hair et al., 1998). In addition to Pearson's correlation analysis, the variance inflation factors (VIFs) is also used to detect the existence of multicollinearity. According to the results of the VIF, multicollinearity was not found to be a problem in our model as all variance inflation factors less than 10 ranged from 3.75-1.2. Appendix 5 shows the table for the VIF test. Secondly, we use the Durbin-Watson statistic to check if the variables are serially correlated in all conditions. Velnampy (2011) argues that the Durbin-Watson statistic should be between 1.5 and 2.5 to indicate that there is no autocorrelation. As shown in table (6.9) below, the Durbin-Watson test reveals that our models do not suffer from autocorrelation. This study also conducted a Breusch-Pagan test to ensure a lack of heteroscedasticity.

The figures in table (6.9) show that the p-value is smaller than 0.05, then the null hypothesis constant variance is rejected and there is evidence of heteroscedasticity. In this case, we employ the robust-cluster standard errors estimator through Stata software aiming to control for heteroscedasticity problems. Using this cluster standard error estimator, we supposed that observations should be independent across clusters (Thompson, 2011).

Table 6.9: Results of OLS assumptions tests

Tests (Stata)	ROA	Tobin's Q
Durbin Watson statistic for autocorrelation	1.991	2.019
Breusch-Pagan/Cook-Weisberg test for heteroscedasticity (p-value)	6.95 (0.008)	85.07 (0.000)

6.5.1 Pooled-OLS regression results

This section shows the results from the ordinary least square regressions (OLS) that will be discussed. The following regression model was used to investigate the relationship between corporate governance variables and financial performance, comparing family and non-family firms.

Financial performance = f (board size, CEO duality, independent directors, female board member, family-CEO, concentrated ownership, local institutional ownership, foreign ownership, log firm size, firm age, leverage and industry control)

That is,

$$\text{Financial Performance} = \alpha + \beta_1 \text{BOSIZE} + \beta_2 \text{CEODU} + \beta_3 \text{INDTDIR} + \beta_4 \text{FEMALEBO} + \beta_5 \text{FAMCEO} + \beta_6 \text{OWNCON} + \beta_7 \text{OWNLOC} + \beta_8 \text{OWNFOR} + \beta_9 \text{FSIZE} + \beta_{10} \text{FAGE} + \beta_{11} \text{LEVERAGE} + \beta_{12} \text{INDUST} + \varepsilon$$

Where:

α = Intercept

Financial Performance = ROA and Tobin's Q.

BOSIZE = Number of directors on board

CEODUALITY = A dummy variable takes the value of one if the CEO being chairman, and zero otherwise.

INDTDIR = Percentage of independent directors

FEMALEBO = Number of female directors on the board.

FAMCEO = A dummy variable takes the value of one if the CEO being family, and zero otherwise.

OWNCON = Total of shares that are owned by shareholders who own 5% or more in the company

OWNLOC = Total percentage of shares owned by local institutional shareholders in the company

OWNFOR = Total percentage of shares (capital) that owned by foreign shareholders.

FSIZE = Firm size, the natural logarithm of total assets

FAGE = Number of years since Incorporation

LEVERAGE = Long term debt to total assets.

INDUS = Eighteen Dummy variables for eighteen industry sectors

ε = Error term

The following hypotheses will be tested for both family and non-family firms through regression analyses. The results will then be discussed and compared with previous studies, if available.

H1: There is a negative relationship between board size and performance.

H2: There is a negative relationship between CEO duality and performance.

H3: There is a positive relationship between independent directors and performance.

H4: There is a positive relationship between female board member and performance.

H5: There is a positive/negative relationship between family CEO and performance.

H6: There is a positive relationship between concentrated ownership and performance.

H7: There is a negative relationship between local institutional ownership and performance.

H8: There is a positive relationship between foreign ownership and performance.

6.5.1.1 Financial Performance (ROA)

The following table presents the overall results for the effect of corporate governance (namely; board of directors, ownership structure and control variables) on financial performance measured by return on assets (ROA) as an independent variable comparing family and non-family firms. The results are jointly significant at 1%, 5% and 10% of significance. It should be noted that R-squares for the ROA range from 5% to 38% for family and non-family firms. As shown in Table (6.10) below, the board size has a negative significant impact on the performance of family firms, while non-family firms, the results show a positive and insignificant relationship between the size of the board and ROA. There is a negative relationship between CEO duality and corporate performance, which is significant at 1% for non-family firms, but an insignificant relationship with the performance of family firms. The association between independent directors with non-family firm performance is positive and significant with 10%. For family firms, the table shows an insignificant relationship between independent directors and financial performance. There is a negative association between female board members with ROA, and significant with 10% for non-family firms, but positive and statistically insignificant for family firms. Our results show that family CEO is negatively related to, but does not have any significant influence on family firm performance.

Interestingly, we find that both concentrated ownership and local institutional ownership are associated with firm performance, however, support for these results can be found in the literature. For example, Fama and Jensen (1983), found a negative association between concentrated ownership with firm performance and argue that the existence of large shareholders in the firm may reduce liquidity. This is because large shareholders own most of the company shares, and thus lower the equities available for trade. Regarding local institutional ownership, Khanna and Palepu (1999) emphasise its weakness in monitoring, especially in emerging markets. On the other hand, the figures in table (6.10) show that both family and non-family firms with high foreign ownership display higher ROA.

Firm size is found to be statistically significant and positively related to ROA for non-family firms and statistically insignificant for family firms. There is a positive relationship between the firm ages and financial performance for non-family firms, but it is negative and insignificant for family firms. There is a negative association between leverage and the performance of family and non-family firm, and it is significant at 5% and 1%, respectively.

Table 6.10: Pooled-OLS regression results for financial performance (ROA)

Financial Performance- ROA				
	Family Firms		Non-family Firms	
Variables	Coef.	P(Sig)	Coef.	P(Sig)
BOSIZE	-.024	0.021**	.121	0.786
CEODUA	.000	0.803	-.325	0.010***
INDTDIR	.073	0.283	.291	0.067*
FEMABO	.007	0.315	-.139	0.079*
CEOFAM	-.011	0.348	-	-
OWNCON	-.036	0.353	-.262	0.511
OWNLOC	-.001	0.708	.534	0.157
OWNFOR	.030	0.024**	.257	0.018**
FSIZE	.018	0.121	.382	0.000***
FAGE	-.010	0.417	.592	0.000***
LEVERAGE	-.014	0.015**	-1.46	0.000***
R-squared	0.0559		0.3811	
Prob> F, chi2	0.000		0.000	
Industry dummy	Yes		Yes	
Observations	392		329	

The dependent variable is measured by financial performance (ROA), which is in turn measured by net income / total assets. The independent variables include BOSIZE = Number of directors on board; CEODUALITY = A dummy variable takes the value of one if the CEO being chairman, and zero otherwise; INDDIR = Percentage of independent directors; FEMALEBO = Number of female directors on the board; FAMCEO = A dummy variable takes the value of one if the CEO being family, and zero otherwise; OWNCON = Total of shares owned by shareholders who own 5% or more in the company; OWNLOC = Total percentage of shares owned by local institutional shareholders in the company; OWNFOR = Total percentage of shares (capital) that owned by foreign shareholders. The control variables include FSIZE = the natural logarithm of total assets; FAGE = Number of years since Incorporation; LEVERAGE = total debt to total assets. The regression model includes 18 dummy variables for each of the 18 industries based on Amman Stock Exchange (ASE). * Significant at 10%; ** significant at 5%; ***significant at 1%, regressions with robust standard errors.

6.5.1.2 Financial Performance (Tobin's Q)

The following table presents the overall results for the effect of corporate governance (board of directors, ownership structure and control variables) on financial performance measured by return on assets (Tobin's Q) as independent variables comparing family and non-family firms. The results are jointly significant at 1%, 5% and 10% of significance. It should be noted that R-squares for the ROA range from 9% to 19% for family and non-family firms. As shown in Table (6.11) below, the board size has a negative significant impact on the performance of family firms, while non-family firms, the results show a positive and insignificant relationship between the size of the board and firm performance. There is a positive relationship between CEO duality and Tobin's Q, which is significant at 5% for family firms, but an insignificant relationship with the performance of non-family firms. The association between independent directors with non-family firm performance is positive and significant with 10%. For family firms, the table shows a statistically significant and negative relationship between independent directors and financial performance. There is a negative association between female board members with firm performance, and significant with 5% for non-family firms, while negative and insignificant with family firm performance. Our results show that family CEO is negatively related to family firm performance as measured by Tobin's Q, which is significant at 1%.

In addition, we find that both concentrated ownership and local institutional ownership is negatively associated with the performance of family firms at 1% and 5%, respectively. Regarding non-family firms, the concentrated ownership does not have any significant impact on financial performance, while the coefficient on the variable local institutional ownership is positive and has a significant influence on the performance (Tobin's Q). On the other hand, the figures in table (6.11) shows that foreign ownership in family and non-family firms indeed has a positive and significant impact on Tobin's Q in Jordan. This is seen in the positive and statistically significant coefficient on OWNFOR.

Firm size is found to be statistically insignificant as related to Tobin's Q for non-family and family firms. There is a negative association between firm age and the performance of family and non-family firm, and it is significant at 1% and 10%, respectively. The table (6.11) also shows that the

leverage variable has a negative and significant impact on the performance of firm as measured by Tobin's Q in family and non-family firms.

Table 6.11: Pooled-OLS regression results for financial performance (Tobin's Q)

Financial Performance- Tobin's Q				
Variables	Family Firms		Non-family Firms	
	Coef.	P(Sig)	Coef.	P(Sig)
BOSIZE	-.075	0.034**	.350	0.234
CEODUA	.014	0.044**	.100	0.323
INDTDIR	-.014	0.070*	.941	0.088*
FEMABO	-.406	0.379	-.377	0.016**
CEOFAM	-.025	0.010***	-	-
OWNCON	-.063	0.000***	-.304	0.286
OWNLOC	-.027	0.040**	.457	0.045**
OWNFOR	.012	0.057*	.491	0.009***
FSIZE	.087	0.891	-.096	0.102
FAGE	-.020	0.003***	-.229	0.065*
LEVERAGE	-.091	0.540	.154	0.322
R-squared	0.0984		0.1944	
Prob> F, chi2	0.000		0.000	
Industry dummy	Yes		Yes	
Observations	392		329	

The dependent variable is measured by financial performance (Tobin's Q), which is measured by the market value / total assets. The independent variable include BOSIZE = Number of directors on board; CEODUALITY = A dummy variable takes the value of one if the CEO being chairman, and zero otherwise; INDTDIR = Percentage of independent directors; FEMALEBO = Number of female directors on the board; FAMCEO = A dummy variable takes the value of one if the CEO being family, and zero otherwise; OWNCON = Total of shares that are owned by shareholders who own 5% or more in the company; OWNLOC = Total percentage of shares owned by local institutional shareholders in the company; OWNFOR = Total percentage of shares (capital) that owned by foreign shareholders. The control variables include FSIZE = the natural logarithm of total assets; FAGE = Number of years since Incorporation; LEVERAGE = total debt to total assets. The regression model includes 18 dummy variables for each of the 18 industries based on Amman Stock Exchange (ASE). * Significant at 10%; ** significant at 5%; ***significant at 1%, regressions with robust standard errors.

6.6 Discussion of corporate governance mechanisms on corporate performance

In this thesis, the main objective of the analysis is to examine the association between corporate governance variables on corporate performance in Jordan. Ordinary Least Square (OLS) regression is used. The sample covers all non-financial firms that have been part of the Amman Stock Exchange (ASE) during the period 2009-2015. Both family and non-family firms have been included in the sample of Jordanian companies. The family firms form a considerable part of Jordan's economy, where most of the shares are concentrated in the hands of large shareholders, who are generally families (ROSC Jordan, 2004). As previously discussed, this study adopted a multiple-theoretical framework (agency and resource dependence theory) that may potentially help to understand the effect of each corporate governance variable on the performance of family and non-family firms, and also developed the hypothesised relationships. Furthermore, accounting based measure (ROA) and market based measure (Tobin's Q) were used as two financial indicators commonly utilised by the existing studies. Corporate governance variables such as the number of directors on board, role duality, the presence of independent and female directors, CEO family, concentrated ownership, local institutional ownership, foreign ownership were associated with increased/decreased performance of the firm. It is also argued that such variables have an influence on family firm performance and could be different compared to non-family firms. The following subsections provide general discussion to link the results from the above tables with existing literature in respect to family and non-family firms.

6.6.1 Discussion of board variables on corporate performance

- **Board Size**

As shown in Table 6.10, in family firms the board size has a negative and significant impact on the performance measured by the ROA, which supports the first hypothesis that there is a negative relationship between board size and corporate performance. This negative relationship indicates that when the board size increases, the performance of the family firms will decrease. This is consistent with previous studies such as Anderson & Reeb (2004); Bennedsen, Kongsted & Nielsen (2008) and Haslindar & Fazilah (2011) which argued that a large board is a less effective governance mechanism, and so has a negative effect on family firm performance. Bennedsen et

al., (2008) found that family firms have a negative relationship with large boards as board membership rises to more than 5 members. Similarly, however, when financial performance is measured by Tobin's Q the table shows a negative and significant association of the board size with corporate performance. Regarding non-family firms, the results show an insignificant relationship between the size of the board and corporate performance (as measured by the ROA or Tobin's Q). This is consistent with previous studies such as (Barnhart & Rosenstein, 1998; Di Pietra et al., 2008; Millet-Reyes and Zhao, 2010; Al-Matari et al., 2012).

However, the positive and significant effect of board size, as stewardship and resource dependency theories assume, depends on the variety of skills and experiences and of the directors that support them participate efficiently in the decision-making process (Setia-Atmaja et al., 2009). But still, if the board includes a number of directors who are not qualified or lack the relevant information about the nature of the company's operations, the advantages of the number of directors can be lost. Within Jordanian context, there are two possible explanations for these findings. The first is that family shareholders usually dominate the board in Jordanian family firms, so appointment procedures are based on nepotism and friendship rather than relevant qualifications and experience. This may result in an increase in the ability of board members to effect management decisions and undermine the board monitoring and coordination, and thus make the board less effective to influence the firm's performance. The second explanation may be that the market perceives that board members in family firms lack relevant skills in business, as well as pursuing their own benefit by expropriating the non-family shares.

This is consistent with the findings and arguments presented by Hu et al. (2010). They argued that highly concentrated ownership in a family company creates difficulty in maintaining control, facilitating communication when making decisions, and thus increasing the problem of free-riding. In theory, it means that increasing board size has a negative impact on financial performance (Anderson & Reeb, 2004a). Based on this finding, the hypothesis (*H1*) for non-family firms, which stated that there is a negative relationship between board size and financial performance as measured by ROA or Tobin's Q, is rejected. For family firms, it is partially supported in this study.

- CEO Duality

With respect to family firms, based on the market-based measure (Tobin's Q), the results reveal that there is a positive and significant relationship between CEO duality and Tobin's Q in the family firms. This finding was found to be inconsistent to the expectation of the effect of CEO duality, which may lead to an increased agency problem resulting from ineffective monitoring of the CEO by the board negatively affect the company's performance. In addition this empirical outcome does not support the recommendation of corporate governance codes to pursue the separation of the two positions from one another. Thus, Hypothesis (H2) for family firms is not supported. Previous studies on family firm performance (e.g., Chen et al., 2005; Lam and Lee, 2008) have argued that the separation of the role of CEO and chairman is valuable and strengthen the monitoring capacity of the board. They further argue that combining the roles of the CEO and chairman in family firms provides greater opportunities for managerial entrenchment and expropriation of non-family shareholders' shares.

This positive relationship is in line with the viewpoint of stewardship theory which debates that CEOs are trustworthy and work in the best interests of all shareholders (Davis et al., 1997). Consequently, *"the fusion of the incumbency of the roles of chairman and CEO will enhance effectiveness and produce, as a result, superior returns to shareholders than separation of the roles of chairman and CEO"* (Donaldson & Davis, 1991, p. 52). Also, other studies are consistent with the view that CEO duality is positively related to firms' performance. For example, Donaldson and Davis (1991) found that CEO duality is positively related to firm's performance. They argue that CEO duality would be able to progress the process of decision making, and is likely to overcome organisational inertia, and top managers have great freedom to work on their vision. Braun and Sharma (2007) argue that CEO duality in family firms positively affects firm performance, suggesting that CEO duality leads to improved strategic decisions given the discretion of the CEO. Also, in many cases, the CEO and Chairman positions are in the hands of the founder or family member. The literature also suggests that may be an important advantage for a firm due to their experience, skills and good reputation, which may contribute to their business (Hillman and Dalziel, 2003). For example, Morck et al. (1988) suggest that a CEO founder is usually an expert in the field of business. Additionally, companies could take advantage of business or political networks established by a CEO founder (Polsiri and Wiwattanakantang,

2004). Therefore, from the viewpoint of resource dependency, duality may be useful. The control affected by families as large shareholders means that the duality is likely to be present more substantially in family businesses. From another perspective, this finding of the study supports institutional theory in that despite the positive impact of CEO duality on Jordanian family firms' performance, the majority of Jordanian family firms (67%) tend to separate the CEO and chairman positions as a result of the 2009 JCGC recommendations. Institutional theory argues that companies may adopt corporate governance practices looking for legitimacy and social acceptance, regardless of the effectiveness of such practices (Saudagaran & Diga, 1997).

Moreover, in Jordan, as in many Middle Eastern countries, senior management and the board of directors in family firms are generally controlled by family members. Hence, CEO duality in Jordanian family businesses may be common and not necessarily have an undesirable impact on company performance as in many other emerging markets with different cultural conditions (i.e., Western countries). Also, CEOs who have a dual role in Jordanian family firms are concerned about reputation, are more committed to their businesses, and run the business accordingly to improve firm performance. In addition, Islamic teachings require Muslims to keep their trusts, contracts and promises as well as to stay away from bad behaviours such as fraud, stealing, explicitly and cheating. Based on Islamic teachings, CEOs in a firm are required to act in the best interests of stakeholders. Furthermore, in Jordan, family businesses are often run in an uncomplicated business environment when compared to non-family businesses. As a result, CEO duality could be helpful in terms of reducing bureaucracy within the company structure, improve communications between directors and speed up the decision-making process.

Conversely, however, when performance is measured by ROA the result shows an insignificant relationship between CEO duality and corporate performance. Again, based on our findings, Hypothesis (2) for family firms, which stated that there is a negative relationship between CEO duality and firm performance ROA or Tobin's Q, is not supported. Regarding non-family firms, the results show a significant negative relationship between CEO duality and ROA. This is consistent with previous studies such as Florackis (2005) and Song et al. (2006) suggesting that CEO duality is likely to be a negative influence on the decision making process and monitoring of

the managerial opportunistic behaviour, thus resulting in weak performance. Based on this result, hypothesis (H2) for non-family firms is supported.

- Independent Directors

The result for independent non-executive directors' percentage shows a negative and significant impact on Tobin's Q in family firms. This finding is inconsistent with the OECD principles and the Jordanian Corporate Governance Code (2006), which recommend the presence of more independent directors on the board, and it differs from the results of previous studies that independent directors can provide independent decisions and judgments, as well as experience, control services, reputation and specialised knowledge as important sources for the firm (Pfeffer, 1973; Pfeffer and Salancik, 1978; Fama, 1980; Dahya and McConnell, 2007; Muravyev et al., 2014). With respect to family firms, according to the agency theory, independent directors are a tool to mitigate severe interest conflicts between family shareholders and non-family shareholders, which leads to less agency costs, as well as more effective monitoring (Arosa et al., 2010). However, our findings are consistent with stewardship theory. This theory argues that independent directors' lack of knowledge related to the nature of the company's operations, which reduces their capacity to improve the company's performance (Weir & Laing, 2000). Furthermore, independent directors give insufficient effort and time to effectively play their roles and have a negative impact on corporate performance (Jiraporn et al., 2009). However, this finding of the study is inconsistent with some previous studies (e.g., Setia-Atmaja et al., 2009; Amran and Ahmad, 2011) which stressed that independent directors have a weaker impact on family firm performance than on non-family ones. Setia-Atmaja et al. (2009) attributes this to the large presence of family members on the board, who have the right to appoint and replace the outside directors, which may reduce the effectiveness of their monitoring, consequently impacting on performance negatively.

The possible explanation for this result may be that firms with higher proportions of independent directors are more likely to experience lower performance because independent directors are unfamiliar with the operations of company business, are not full-time workers in the firm, and are unable to understand the complexities and difficulties facing the company. Further, part-time independent managers often have other obligations that may affect their dedication to effective control. For example, independent directors may be executives in other corporations, thereby

discouraging their motivation to perform their roles and responsibilities efficiently. In addition, socio-cultural factors (such as nepotism and tribalism) also impact the appointment of independent directors in Jordanian companies, assuming that membership in the board of directors is considered a distinct achievement in Jordanian society. Another possible explanation may be that the appointees may not have the relevant skills and experience as they are appointed because of a prior relationship with family shareholders, and therefore feel obliged to work for them. As a result, the presence of independent directors on the board negatively influences Jordanian family firms' performance.

Furthermore, based on the accounting-based measure, there is an insignificant relationship between independent directors and ROA in family firms. This finding is consistent with the results of Chen et al. (2005) in Hong Kong, and Ibrahim and Samad (2011) in Malaysia and Pandey et al. (2011) in India. They reported that outside directors are not truly independent but have been appointed due to a friendship or solely to meet the listing rules. Based on our findings, Hypothesis (3) for family firms, which stated that there is a positive relationship between independent non-executive directors' and firm performance, is rejected.

Regarding non-family firms, the results show a highly positive and significant relationship between independent directors and corporate performance (as measured by the ROA or Tobin's Q). This can be explained by reference to a number of factors that affect the business environment. Jordanian society is widely influenced by Islamic values that highlight the importance of justice and honesty. Muslims are required to live up to their promises, contracts and trust, along with avoid unfair behavior such as deception and theft. These values increase the degree of confidence in business transactions and finance (Abeng, 1997). Based on this finding, the Hypothesis (3) for non-family firms, which stated that there is a positive relationship between independent directors' and corporate performance as measured by ROA or Tobin's Q, is supported.

- Female board member

With respect to female boards member, based on both the accounting measure (ROA) and the market measure (Tobin's Q), the finding shows that there is an insignificant relationship between female board members and corporate performance. Most previous studies that examined the effect

of female board members on corporate performance was a positive relationship. For instance, Salganicoff (1990), Cromie and O'Sullivan (1999), Ruigrok et al. (2007), Adams and Ferreira (2009), Amore et al (2014) and Menozzi et al. (2015) argued that the existence of female board members improved monitoring and decreased agency problems in the companies. This is because females are usually nominated as directors based on family ties, serving as observers and family agents in the company. Their conclusion further indicates that females have exceptional behaviours toward family business such as loyalty, caring for family members, and sensitivity to satisfy the needs of others. In addition, Cole (1997) reported that women in general feel happier to work in family firms than women working in non-family firms. Cromie and O'Sullivan (1999) state that family females prefer to develop their career in family firms rather than outside.

Regarding non-family firms, the results show a negative and significant relationship between the presence of a female on the board and corporate performance (as measured by the ROA or Tobin's Q). Therefore, this finding was found to be inconsistent with our expectation of the effect of female directors, which stated that there is a positive relationship between female board member and corporate performance as measured by ROA or Tobin's, thus the Hypothesis four (*H4*) is not supported for family firms. However, this finding is consistent with some studies that failed to find any significant relationship between female members and corporate performance (see, e.g., Carter et al., 2010; Chapple and Humphrey, 2014; Rose, 2007; Randoy et al., 2006; Zahra & Stanton, 1998). The possible explanation for this result may be that in Jordan, female board members usually do not have a business background and were likely to follow male members on the board. Moreover, the presence of female members of Jordanian family boards is relatively low (less than two) compared with male directors. In Jordan, a report of the IFC (2015) show that around 3 % of board members in Jordanian companies are women. Thus, females are usually considered to be a minority group on the boards, the presence of one or two female directors will not significantly affect corporate performance because their ideas and voices will be ignored by male directors (dominant group). Liu et al. (2013) argue that boards with more than three women directors have a significant influence on the performance of a firm. One of the possible reasons is due to imposing female director quotas which requires firms are forced to appoint more female directors. The imposition of gender diversity is applied in the developed markets (countries), whereas most of the stock market regulators in developing countries do not restrict gender diversity on the boards.

However, the finding of the study is consistent with previous studies such as Adams and Ferreira (2009), Bohren and Strom (2010), Shehata et al. (2017) who conclude that gender diversity has a negative impact on firm performance. Their findings also suggest that women's inclusion in boards of directors should be carefully observed and should be based on qualifications and expertise to keep away from the negative impact of financial performance. Based on this finding, the Hypothesis (*H4*) for family and non-family firms, which stated that there is a positive relationship between female board members and financial performance as measured by ROA or Tobin's Q, is rejected.

- Family CEO

From the discussion in chapter three (section 3.2.5), there is no clear conclusion to be drawn on the impact of the family CEO on firm performance. Different studies conducted in various geographical locations have reached different results about the role of a family CEO in improved performance. Accordingly, the association between family CEO and financial performance is an open empirical issue need further exploration. As far as we know, no prior research has investigated the impact of the family CEO in Jordan. Therefore, this study use the family CEO dummy, which holds a value of 1 if CEO is a family member, and zero otherwise.

Based on the market measure (Tobin's Q) for family firms in table 6.11, the finding shows that family CEO has a negative significant impact on Tobin's Q. This result is consistent with other studies such as Barth et al. (2005), Bennedsen et al. (2007), Sonfield and Lussier (2009) and Pandey et al. (2011). Barth et al. (2005) suggested that the ownership and management of the firm by the same family may have a negative impact on the performance of the firm because they are too biased to choose managers from the family, where these managers may be ineffective and unqualified to fill managerial positions. Moreover, the involvement of family CEO in selecting board members provides an opportunity for the CEO to become more entrenched, regardless of his/her percentage of share in the firm (Morck et al., 1988). This situation can lead to a decline in the firm's productivity (Burkart et al., 2003).

Furthermore, according to Anderson and Reeb (2003) the founding family CEO positively affects the performance of a firm, but not with following generations of family CEOs. Bertrand et al.

(2008) also investigated the impact of family CEO, including founder's son on firm performance, and found the negative effect of family CEO on performance, and this effect becomes worse when founder's son is CEO and the founder was dead. For that reason, we investigated the company's annual reports and found that most CEO positions are held by founder's son in the context of listed family companies in Jordan (as shown in the Appendix 5).

With respect to accounting measures (ROA), the findings also show that the coefficient signs are negative but insignificant between family CEO and corporate performance. The negative relationship between family CEOs and firm performance measured by ROA is in line with agency theory which argues that family CEOs can lead to agency problems between majority and minority shareholders. According to agency theory, family CEOs may expropriate minority shareholders' interests by using their power to preferentially benefit the interests of their family (Burkart et al., 2003; Lansberg, 1983). Therefore, a possible explanation for this result may be that in Jordan, investors realise that family members hold the CEO position as part of family's excessive control over the company and therefore react negatively to the situation.

Based on these findings, the Hypothesis (*H5*) for family firms, which stated that there is a positive/negative relationship between family CEO and financial performance as measured by ROA or Tobin's Q, is not rejected.

6.6.2 Discussion of ownership structure variables on corporate performance

In the following subsections, we draw our attention to ownership structure variables and the impact on financial performance (measured by ROA and Tobin's Q) for family and non-family firms. The results for ownership variables are tabulated in tables (6.10) and (6.11) respectively.

- Ownership Concentration

It is expected that there is a positive association between concentrated ownership with corporate performance as compared to ownership dispersion, where a larger number of shareholders have no incentive to monitor managers, possibly leading to poor company performance. For example, Miller and Le-Breton Miller (2006) indicated that the reduction of agency costs due to ownership

concentration will lead to more benefits (i.e. savings and extra resources) for a firm and increase its value.

However, with respect to non-family firms, our findings show that the coefficient on the ownership concentration variable is always negative but does not appear to have a significant impact on corporate performance (measured by Tobin's Q or ROA). This result is consistent with the findings of other studies such as Prowse (1992), Thomsen et al. (2006), Omrana et al. (2008) and Shan and McIver (2011), all of which failed to find any significant relationship between concentrated ownership and corporate performance. Based on this finding, the Hypothesis (H6) for non-family firms, which stated that there is a positive relationship between ownership concentration and corporate performance as measured by ROA or Tobin's Q, is rejected.

With respect to family firms, it can be observed from table (6.11) that the OWNCON coefficient is negative and highly significant in relation to the Tobin's Q performance measure. This shows that when the level of ownership concentration increases, the value of the Jordanian family firms decreases. As shown in table (6.11), the coefficient of -0.063 can be interpreted as: an increase of 1% in the ownership level will lead to a 0.1% decrease in the financial performance (Tobin's Q), in other words, a family firm with an ownership concentration of 1% higher will have a decrease of 0.1% the Tobin's Q. However, a similar relationship is not significant when corporate performance is measured by ROA.

This result is consistent with other studies such as Mudambi and Nicosia (1998), Haniffa and Hudaib (2006) and Millet-Reyes and Zhao (2010) which found that concentrated ownership has a negative and significant impact on corporate performance. Cronqvist and Nilsson (2003) conclude that concentrated ownership (i.e., family ownership) is negatively related to firm performance. They provide evidence that family firms are faced a higher agency costs and lower market value. In conclusion, the Hypothesis (H6) for family firms, is not supported.

The theoretical conclusions of this result appertain to the conflicts of interest between the major non-family shareholders and family shareholders. This negative correlation might be an indication that the situation becomes more complex when there are many large shareholders with family

shareholders and hence more diversified interests among shareholders, with potentially negative and positive impacts on performance. Barclay and Holdernes (1989) believe that the presence of many large shareholders will affect the effects of different types of other major shareholders (e.g., family shareholders). Another reason for the negative relationship is succession in family business, as a result of the family vision for survival, family firms are more likely to enhance long-term performance without considering the interests of other shareholders, since focus on long-term performance could reach the ultimate goal of the family, which is to deliver the company over to the next generations (Anderson and Reeb, 2003).

- Local Institutional Ownership

Based on the findings of table (6.11), there is a positive and significant relationship between local institutional ownership and Tobin's Q in the non-family firms. This result supports the view of the efficient monitoring hypothesis (EMH) that local institutional investors are better informed and more efficient in monitoring management activities than other types of shareholder. It further supports that local institutional investors mitigate agency costs more efficiently (Keasy et al., 1997). This would be consistent with McConnel and Servaes (1990) who reported a positive effect of institutional investors on firm value measured by Tobin's Q. However, this finding is inconsistent with our expectation and does not support our previous prediction that the most domestic institutional investors in Jordan are banks, insurance companies, and the Social Security Corporation Investment Unit. Thus, it is suggested that such investors are not capable of playing an effective role of monitoring and commonly have minor business relationships with companies. However, a similar relationship is not significant when measured by ROA. Based on this finding, the Hypothesis (H7) for non-family firms, which stated that there is a negative relationship between local institutional ownership and corporate performance measured by Tobin's Q and ROA, is not supported.

With regards to the family firms, based on the market measure (Tobin's Q), the result reveals that there is a negative and significant relationship between local institutional ownership and Tobin's Q. This finding was consistent with the expected impact of this ownership, where the combination of family shareholders and other types of shareholders (e.g., local investors) may not necessarily

positively affect the performance of family businesses. Similarly, other studies reported a negative relationship between local institutional investors and family firm performance. For example, Laeven and Levine (2007) argued that more than 40% of publicly-held firms in Western countries are characterised by the existence of family shareholders and an additional large non-family shareholder (such as institutional investors) owning at least 10% of the company's shares. In some cases, domestic institutional investors may offer different goals and desires compared to family shareholders, which may enhance or reduce the performance of family businesses.

Another explanation for this finding, according to the principal-principal problem that it is more prevalent in family firms, Fernando et al. (2013) argue that institutional investors are better able to recognise this problem in family businesses. This implies that family firms are less attractive to institutional investors which are an increasingly important source of capital. In other words, the conflict problems indicate harm to non-family shareholders, so family businesses may not be able to access a new source of capital, especially when they need to expand their investments. Moreover, consistent with the low percentage of local institutional ownership in family firms compared to non-family firms (the mean value 27.6 per cent for family firms, while 52.1 per cent for non-family ones). Consequently, local institutional investors tend to hold stocks without responding to any management actions that may not be in line with their interests. Thus, the Hypothesis (H7) for family firms, that there is a negative relationship between local institutional investors and corporate performance, is not rejected.

- Foreign Ownership

Foreign ownership in family and non-family firms has a positive and significant impact on corporate performance measured by both ROA and Tobin's Q in Jordan. This is seen in the positive and statistically significant coefficient on OWNFOR. In this case, there is a relationship between foreign ownership and corporate performance, which supports Hypothesis (8) for family and non-family firms. This is consistent with the findings of previous empirical studies. For example, Smith et al. (1997); Oxelheim and Randoy (2003); Hanousek et al. (2004); Sulong and Noor (2010); Mishra (2014) and Phung and Mishra (2016) found that firm performance is positively associated with foreign ownership. They report that foreign investors are better monitored and have access to

financial resources and professional talent. Mitton (2002) and Ferreira and Matos (2008) found that firms with higher levels of foreign ownership have higher firm valuations. Regarding family firms, Singapurwoko (2013) examined the impact of ownership structure on performance using a sample of family firms listed the Indonesian stock exchange, and document results that supports the positive relationship between foreign ownership and family firm performance, arguing that family owners believe that foreign institutional investors provide much more benefit than local investors.

The possible explanation for this result might be that in Jordan, there are some distinctive features that attract international investors to buy shares of companies listed on the Amman Stock Exchange. These include; a secure trading environment supported by the stability of the country, a solid financial structure, advanced monetary and fiscal policies, and foreign and domestic investment laws favourable to foreign investors (Marashdeh, 2014, p.73). Moreover, in 2003, the Jordanian government approved a new investment law to provide equal treatment to non-Jordanian investors as local investors, which distinguishes Jordan from other Middle Eastern countries. For instance, most investment laws in the Middle East countries give priority to their local investors in several ways (e.g. ownership and labour force percentage), while these restrictions have been removed in Jordan to facilitate foreign investment in various sectors without any restrictions on the ownership percentage. Furthermore, such investors also enjoy full freedom of capital movement and no taxes on capital gains, and so the Jordanian market developed an attractive investment structure and open economy. Also, the Jordanian Corporate Governance Code issued in 2006 has improved the performance of companies and encouraged foreign investors to invest in Jordanian companies. Therefore, Jordan now has one of the highest levels of foreign investment for a market capital in the world (OECD, 2006). This has resulted in the percentage of non-Jordanian ownership rising from 38.51 in 2001 to 49.50 in 2016.

6.6.3 Discussion of control variables on corporate performance

The following paragraphs presents the discussions for another set of data that are applied throughout the regression analysis - control variables.

- Firm Size

This variable has been used by many empirical studies (such as Boone et al., 2007; Segarra & Teruel, 2009; Hadlock and Pierce 2010). These studies confirm that firm performance can vary depending on the size of the firm. According to the results in Table (6.11), firm size has a positive and significant relationship with ROA in non-family firms. This means that an increase in the asset base of a firm should lead to improved performance and this should be the case if the firm makes maximum use of its assets. This positive relationship suggests that larger firms can benefit from economies of scale and scope than small ones (Joh, 2003). This finding is also consistent with the conclusion of Serrasqueiro and Nunes (2008) that large firms are able to increase their funds and create more diversified strategies, and also have a diverse group of experienced management staff. Furthermore, Argawal and Knoeber (1996) believed that large companies have a higher level of security and inspections, making it difficult to extract any kind of private benefits. Also, large companies have more strength in the market, which leads to higher performance. Our result is consistent with other studies such as Haniffa and Hudaib (2006) and Akbas and Karaduman (2012) who reported a positive relationship between firm size and corporate performance.

- Firm Age

Firm age was found to be negative and significant in terms of the market based measure (Tobin's Q) for family and non-family firms. Firm age is defined as the firm's date of incorporation subtracted from the year 2015. It has been documented that when companies are at an advanced stage in their life cycle, uncertainty among investors and changing stock returns tend to fall. Furthermore, Ouimet and Zarutskie (2014) confirmed that young and smaller companies have higher growth opportunities than old and large companies. The reason behind this finding, suggested Claessens et al. (2002), is that as the company gets older, the liquid tradable securities, disclosure quality and diversified activities tend to increase, which leads to reduce the risk of financial distress, but less growth opportunities. In contrast, younger companies may have greater growth opportunities but still face unfavourable market conditions. The negative and significant relationship shows that younger family firms outperform older ones.

- Leverage

Tables (6.10) and (6.11) show that the leverage variable has a negative and significant impact on the performance of a firm as measured by ROA in both family and non-family firms. Myers (1977) argued that the high levels of leverage may adversely affect the performance of the firm in accordance with the problem of lack of investment. This is due to the increase in financial leverage hampering the company's ability to raise new debt. This result is consistent with studies such as Tong and Ning (2004), who found that that highly leveraged firms reflect a negative indication that the firm does not have the ability to face future financial risks. Similarly, Andrade and Kaplan (1998) expected negative association between leverage and performance. They argued that firms with higher leverage tend to underperform firms with lower leverage.

6.6.4 Industry dummy variables

Following previous corporate governance studies (e.g., Klapper and Love, 2004, Henry, 2008, Foroughi et al., 2011), the industry sector is used as dummy variables. The OLS regression, which included eighteen sectors, was conducted to examine the impact of any of the industry membership on the OLS results. The dummy variables, together with the other independent variables (board of directors and ownership structure), were tested against ROA and Tobin's Q. The findings show mixed results in terms of ROA and Tobin's Q for family and non-family firms (as shown in Appendix 4). However, the positive coefficients of these sectors suggest that firms perform better on average than in other sectors. On the other hand, the negative correlation suggests that companies in these sectors perform worse than their counterparts in other sectors. This finding is consistent with previous studies which found that the influence of corporate governance on firm performance varies according to the industry sector, complexity of operations, ownership levels and type of business (Wernerfelt & Montgomery, 1998; Elsayed, 2007; Lim et al., 2007).

Table 6.12: Overall results showing the influence of corporate governance variables on the performance of family and non-family firms.

	Hypothesis	Findings
H1	Board size and corporate performance in family firms have a negative and significant relationship with ROA and Tobin's Q.	Supported with ROA and Tobin's Q
H1	Board size and corporate performance in non-family firms have an insignificant relationship with ROA and Tobin's Q.	Not supported with ROA and Tobin's Q
H2	CEO duality and corporate performance in family firms have a positive and significant relationship with Tobin's Q, an insignificant and positive relationship with ROA.	Not supported with ROA and Tobin's Q
H2	CEO duality and corporate performance in non-family firms have a negative and significant relationship with ROA. However, there is a positive and insignificant relationship with Tobin's Q.	Supported with ROA. Not supported with Tobin's Q
H3	Independent directors and corporate performance in family firms have a positive and insignificant relationship with ROA, however, the results show a significant and negative relationship with Tobin's Q.	Not supported with ROA and Tobin's Q
H3	Independent directors and corporate performance in non-family firms have a positive and significant relationship with ROA and Tobin's Q.	Supported with ROA and Tobin's Q
H4	Female board member and corporate performance in family firms have an insignificant relationship with ROA and Tobin's Q.	Not supported with ROA and Tobin's Q
H4	Female board member and corporate performance in non-family firms have a negative and significant relationship with ROA and Tobin's Q.	Not supported with ROA and Tobin's Q
H5	Family CEO and corporate performance in family firms have a negative and insignificant relationship with ROA. But significant and negative relationship with Tobin's Q.	Not supported with ROA. Supported with Tobin's Q
H6	Concentrated ownership and corporate performance in family firms have an insignificant and negative relationship with ROA, while a negative and significant relationship with Tobin's Q	Not supported with ROA and Tobin's Q
H6	Concentrated ownership and corporate performance in non-family firms have a negative and insignificant relationship with ROA and Tobin's Q.	Not supported with ROA and Tobin's Q

H7	Local institutional ownership and corporate performance in family firms have an insignificant and negative relationship with ROA. However, corporate performance and local institutional ownership have a negative and significant when measured by Tobin's Q	Not supported with ROA Supported with Tobin's Q
H7	Local institutional ownership and corporate performance in non-family firms have a positive and significant relationship with Tobin's Q, an insignificant and negative relationship with ROA	Not supported with ROA and Tobin's Q
H8	Foreign ownership and corporate performance in family firms have a positive and significant relationship with ROA. Also, corporate performance and local institutional ownership have a positive and significant when measured by Tobin's Q	Supported with ROA Supported with Tobin's Q
H8	Foreign ownership and corporate performance in non-family firms have a positive and significant relationship with Tobin's Q and ROA	Supported with ROA and Tobin's Q

6.7 Endogeneity

Hypotheses were tested in this study based on the analysis using the ordinary least square regression. According to the OLS results, firm performance is affected by corporate governance variables (namely, board of directors and ownership structure). However, as mentioned previously (Chapter 5, Section 7.3), some studies have highlighted the possibility of endogeneity, where corporate governance variables are affected by firm performance. In this case, the model suffers from the existence of the explanatory variables as endogenous. Barro (2008, p, 8) stresses that; *“the endogenous variables are the ones that we want the model to explain, while the exogenous variables are the ones that a model takes as given and does not attempt to explain”*. Green (2003) indicates that the results of the OLS regression may be inconsistent and biased estimates due to the causal effect of independent (explanatory) variables on dependent variables. In other words, the interpretation of the dependent variable may be indirectly associated with other variables that linked with explanatory variables.

The current study examines the influence of corporate governance mechanisms on the performance of family and non-family firms. Hence, there may be a correlation between one or more corporate governance variables with error term. The 2SLS regression was carried out using new external variables in order to check the nature of their impact on the model. These additional variables from outside the model are called instrumental variables (IV). In order to ensure that these additional variables are appropriate, there should be no correlation between these variables and the error term. Therefore, lagged variables were used as instrumental variables in the analysis. This is because the type of research data collected for this study, which consists of a set of observations arranged at different times on a large number of companies. Therefore, there is a tendency to link data across observations but it seems less likely that the early values of the variables directly affect the current values of the dependent variable. Table 6.13 shows some studies in corporate governance and corporate performance that have taken into account the issue of endogeneity.

Table 6.13: Some studies that considering the issue of endogeneity.

Author(s)/ Year	Sample Variables	Testing Method	Instrumental variable/s	Justification for Instrumental variables
Hermalin & Weisbach (1991)	Board and ownership variables and performance	OLS and 2SLS	Lagged variables	Hausman test
Agrawal & Knoeber (1996)	Corporate governance mechanisms and performance	3SLS	Tobin's Q & control variable	Unavailable
Cho (1998)	Ownership structure & firm value	2SLS and 3SLS	Lagged value for leverage and Tobin's Q	Unavailable. However, the researcher point out that 3SLS regression shows similar results of 2SLS. In conclusion, he argues that endogeneity impacts the OLS results
Himmelberg et al. (1999)	Ownership structure and performance	2SLS	log sales, log sales squared, standard deviation and standard deviation dummy	Shows the difficulty of identifying instrument variables for managerial ownership
Young (2000)	UK board structure and governance arrangements.	Univariate tests	Executive board member, managerial ownership and dividend payments	Unavailable
Palia (2001)	Management compensation and corporate value	2SLS & 3 different specifications; (i) without control variables (ii) with control variables (iii) with control variables and other variables (including,	CEO experience, CEO education, CEO age and firm volatility	Ensure that there is no correlation between instrumental variables and error term.

		capital intensity, free cash-flow, board structure and ownership structure and CEO founder)		
Demsetz & Villalonga (2001)	Ownership structure and corporate performance	OLS and 2SLS	Managerial shareholdings	Unavailable
Bhagat & Black (2002)	Board independence & performance	3SLS	Earning per share, board independence and insiders' shareholdings	Unavailable
Vafeas (1999)	Board meeting and performance	2SLS	univariate and multivariate tests	Unavailable
Abdullah & Page (2009)	Governance variables and corporate performance	2SLS	Lagged values for board independence and board size	Unavailable
Wintoki & Yang (2007)	Internal corporate governance variables	Generalized method of moments (GMM)	Board structure (Lagged values for board independence and board size)	Established a theoretical motivation for chosen board structure and ensure that there is no correlation between instrumental variables and error term.
Lan and Zhang (2013)	Governance mechanisms and firm performance	OLS and 2SLS	Independent director	Established a theoretical motivation
Akbar et al. (2016)	Governance variables and corporate performance	OLS & GMM	All governance variables (board of directors and board sub-committees)	The possibility of reverse endogeneity in the results of OLS regressions

6.7.1 Instrumental Variables

From the above table (6.13), we can see that there are difficulties in identifying the instrumental variables. Larcker and Rusticus (2005) argued that testing the existence of endogeneity in a regression model is a complicated issue. They also demonstrated the difficulty to identify possible endogenous variables as well as the instrumentals. This study employs 2SLS using a set of instrumental variables consisting of lagged endogenous variables as an appropriate method to address the problem of endogeneity. To ensure that these additional variables are appropriate, there should be no correlation between them and the error term. Therefore, lagged variables were used as instrumental variables in the analysis. The number of lags has been investigated by several studies. For instance, Wintoki, Linck and Netter (2012) proposed that including two lags in the model is adequate to capture the dynamic aspect of the governance/performance relation. This is consistent with Glen, Lee, Singh (2001) and Gschwandtner (2005), who agreed that including two lags is enough to capture continued performance / profitability.

In this study, we have identified the variables of the board of directors (for example, the size of the board and female board member) as possible endogenous variables, and therefore two instrumental variables that do not correlate with the error term, are required. A review of the literature on corporate governance and firm performance shows that a large number of studies have identified the board variables as endogenous variables (e.g., Barnhart & Rosenstein, 1998; Lan & Zhang, 2013; Akbar et al., 2016). Many of these studies have also identified the lagged variables of the identified endogenous variables as the appropriate instrumental variables. With regards to ownership structure, the statistics show that local corporate holdings in Jordanian listed companies are relatively stable (Al-Amarneh & Yaseen, 2014). Moreover, shareholdings by foreigners in Jordan were stable during the last seven years since the inception of the Arab spring (as shown in Table 6.14). Therefore, it is irrational to consider that shareholders have exceptional ability and can see into the future, and confirm the performance of their companies, and thus their success or otherwise, of their shares.

In addition, Anderson and Reeb (2003) and Andres (2008) stated that the reverse causality of ownership structure and firm performance remains doubtful. Andres (2008) asserted that the structure of ownership is stable over the long term "even in economically bad times" (p. 433)

between companies in Germany, which showed the reverse causality, performance is the cause of ownership structure, is unjustifiable. Thomson and Pedersen 2000), in examining the effect of the ownership structure on the performance of the company in Europe, stated that ownership structure is remarkably stable even during turbulent periods. Maury and Pajuste (2005) also confirm that ownership structures tend to be stable over time. From the above, it is therefore sensible to consider ownership structure as exogenous and thus the endogeneity issue should not be a concern in this study. While, board size (BOSIZE) and independent directors (INDDIR) are considered endogenous variables. Hence, the two instruments variables used in the 2SLS regression were the lagged variable for (BOSIZE) and the lagged variable for (INDDIR).

Table 6.14: Percentage of foreign shareholders in service and industry sectors

Years	Services	Industry
2009	3.847	5.893
2010	3.909	6.089
2011	3.915	6.254
2012	3.965	5.418
2013	4.060	6.755
2014	4.034	6.868
2015	4.071	7.058

6.7.2 Two Stage Least Squares (2SLS) Regression

This section presents the findings of the 2SLS for corporate financial performance (measured by ROA and Tobin's Q) against the board of directors, ownership structure and control variables. As mentioned earlier, to use the 2SLS, instrumental variables are required. There are two methods to run the 2SLS: The first method is about using two steps of the ordinary least squares (OLS), and the second method is more direct, using the 2SLS option in the STATA program.

The first method is to run OLS twice for board size and independent directors. For example, for the board size, the two step OLS is run as follows;

In the first OLS, the board size is taken up as the dependent variable and regressed against its lagged value, CEO duality, independent directors, female board member, family CEO, concentrated ownership, local institutional ownership, foreign ownership, firm size, firm age, leverage and the industry variable. The first OLS regression is;

$$BOSIZE = \alpha + \beta_1 BOSIZE_{n-1} + \beta_2 CEODU + \beta_3 INDTDIR + \beta_4 FEMALEBO + \beta_5 FAMCEO + \beta_6 OWNCON + \beta_7 OWNLOC + \beta_8 OWNFOR + \beta_9 FSIZE + \beta_{10} FAGE + \beta_{11} LEVERAGE + \beta_{12} INDUST + \varepsilon$$

The same procedure of BOSIZE was repeated for INDTDIR, as follows;

$$INDTDIR = \alpha + \beta_1 INDTDIR_{n-1} + \beta_2 BOSIZE + \beta_3 CEODU + \beta_4 FEMALEBO + \beta_5 FAMCEO + \beta_6 OWNCON + \beta_7 OWNLOC + \beta_8 OWNFOR + \beta_9 FSIZE + \beta_{10} FAGE + \beta_{11} LEVERAGE + \beta_{12} INDUST + \varepsilon$$

The predicted value of BOSIZE and INDTDIR is obtained after running the first OLS regression. The predicted values of BOSIZE and INDTDIR replace BOSIZE and INDTDIR respectively, in which it will be regressed with other independent variables against ROA and Tobin's Q as dependent variables using the following equations;

$$ROA \text{ (Tobin's } Q) = \alpha + \beta_1 predicatedBOSIZE + \beta_2 CEODU + \beta_3 predictedINDTDIR + \beta_4 FEMALEBO + \beta_5 FAMCEO + \beta_6 OWNCON + \beta_7 OWNLOC + \beta_8 OWNFOR + \beta_9 FSIZE + \beta_{10} FAGE + \beta_{11} LEVERAGE + \beta_{12} INDUST + \beta_{13} INDUST1 + \dots + \beta_{29} INDUST18 + \varepsilon$$

6.7.3 2SLS Regression Results

The following tables present the overall results of 2SLS regressions for the effect of corporate governance (namely; board of directors, ownership structure and control variables) on financial performance ROA and Tobin's Q as independent variables comparing family and non-family firms. The results are jointly significant at 1%, 5% and 10% of significance.

Table 6.15: 2SLS regression results for financial performance (ROA)

Financial Performance- ROA				
	Family Firms		Non-family Firms	
Variables	Coef.	P(Sig)	Coef.	P(Sig)
BOSIZE	-.020	0.082*	.085	0.708
CEODUA	.001	0.653	-.310	0.082*
INDTDIR	.093	0.368	.056	0.093*
FEMABO	.007	0.288	-.014	0.012**
CEOFAM	-.001	0.419	-	-
OWNCON	-.004	0.340	-.047	0.399
OWNLOC	-.004	0.909	.097	0.058*
OWNFOR	.004	0.048**	.587	0.001***
FSIZE	.002	0.133	.468	0.000***
FAGE	-.026	0.387	.655	0.029**
LEVERAGE	-.016	0.010***	-.164	0.000***
R-squared		0.099		0.3166
Prob> F, chi2		0.000		0.000
Industry dummy		Yes		Yes
Observations		392		329

The dependent variable is measured by financial performance (ROA), which is measured by net income / total assets. The Instrumentals variables are the lagged values of BOSIZE & INDTDIR. The independent variable include BOSIZE = Number of directors on board; CEODUALITY= A dummy variable takes the value of one if the CEO being chairman, and zero otherwise; INDTDIR= Percentage of independent directors; FEMALEBO= Number of female directors on the board; FAMCEO= A dummy variable takes the value of one if the CEO being family, and zero otherwise; OWNCON= Total of shares that are owned by shareholders who own 5% or more in the company; OWNLOC= Total percentage of shares owned by local institutional shareholders in the company; OWNFOR= Total percentage of shares (capital) that owned by foreign shareholders. The control variables include FSIZE = the natural logarithm of total assets; FAGE= Number of years since Incorporation; LEVERAGE= total debt to total assets. The regression model includes 18 dummy variables for each of the 18 industries based on Amman Stock Exchange (ASE).
 * Significant at 10%; ** significant at 5%; ***significant at 1%.

Table 6.16: 2SLS regression results for financial performance (Tobin's Q)

Financial Performance- Tobin's Q				
	Family Firms		Non-family Firms	
Variables	Coef.	P(Sig)	Coef.	P(Sig)
BOSIZE	-.046	0.016**	.932	0.306
CEODUA	.021	0.073*	.640	0.388
INDTDIR	-.065	0.099*	.561	0.018**
FEMABO	-.435	0.378	-.148	0.017**
CEOFA	-.019	0.078*	-	-
OWNCON	-.064	0.000***	-.701	0.001***
OWNLOC	-.024	0.012**	.163	0.039**
OWNFOR	.014	0.030**	.190	0.015**
FSIZE	-.024	0.968	-.039	0.297
FAGE	-.026	0.046**	-.801	0.229
LEVERAGE	.021	0.873	.163	0.399
R-squared	0.8762		0.2028	
Prob> F, chi2	0.000		0.000	
Industry dummy	Yes		Yes	
Observations	392		329	

The dependent variable is measured by financial performance (Tobin's Q), which is measured by the total market value / total assets. The Instrumentals variables are the lagged values of BOSIZE & INDDIR. The independent variable include BOSIZE = Number of directors on board; CEODUALITY= A dummy variable takes the value of one if the CEO being chairman, and zero otherwise; INDDIR= Percentage of independent directors; FEMALEBO= Number of female directors on the board; FAMCEO= A dummy variable takes the value of one if the CEO being family, and zero otherwise; OWNCON= Total of shares that are owned by shareholders who own 5% or more in the company; OWNLOC= Total percentage of shares owned by local institutional shareholders in the company; OWNFOR= Total percentage of shares (capital) that owned by foreign shareholders. The control variables include FSIZE = the natural logarithm of total assets; FAGE= Number of years since Incorporation; LEVERAGE= total debt to total assets. The regression model includes 18 dummy variables for each of the 18 industries based on Amman Stock Exchange (ASE). * Significant at 10%; ** significant at 5%; ***significant at 1%, regressions with robust standard errors.

Table (6.14), shows the 2SLS results, where the dependent variable (ROA) is regressed against board of directors (Board size and Independent directors were considered as endogenous variables) and other corporate governance variables. The overall results show that the signs of BOSIZE in 2SLS are similar to the signs of BOSIZE in OLS regression analysis for family and non-family firms, but the significance levels of BOSIZE in OLS where it is significant at 5% for family firms, while it is significant at 10% in 2SLS regression. However, this is not the case for BOSIZE, where there is a change in the significance levels for leverage for family firms from 5% to 10%. In addition, there is a change in the significance levels for CEO duality, female board member, foreign ownership and firm age from 1%, 10%, 5% and 1% to 10%, 5%, 1% and 5% respectively, for non-family firms. Generally, comparison of the results obtained from the 2SLS regression in the table above and the OLS regression (Table 6.10) shows a similar pattern of variables coefficients, but one year is changed which is not unexpected since the dependent variable is the same for the different year.

Regarding the market based measure Tobin's Q, the results of the 2SLS as it can be noticed from the above table, and the observations of the OLS in table (6.11), show a high similarity. Regarding the two endogenous variables, it can also be observed that no substantial change can be seen between the 2SLS results and the OLS results, where the coefficient between the board size and ROA continued statistically significant for family firms (the sign of the coefficient is negative). In addition, the coefficient of the independent directors continued negative without any changes in the significance level. For non-family firms, the INDTDIR have small changes in the significance level from statistical significance at 1% level to 5% level.

6.8 Summary

This study attempts to examine the relationship between corporate governance and the performance for family and non-family firms, where previous literature has shown mixed results. Board of directors (board size, CEO duality, independent directors, female board member); ownership structure (concentrated ownership, local institutional ownership and foreign ownership), and control variables (firm size, age and leverage) are chosen to proxy corporate governance mechanisms. Return on Assets (ROA) and Tobin's Q are chosen to proxy corporate performance. The sample is considered the list of non-financial companies of the ASE over the

period of 2005 to 2015. OLS results for ROA and Tobin's Q regressed against corporate governance variables and control variables were reported.

In this chapter, the endogeneity problem was also considered. As discussed by Himmelberg et al. (1999), the selection of suitable instrumental variables is a complicated issue. Larker and Rusticus (2005) recommended that lagged values are suitable as instrumental variables and were used in the 2SLS regression. In addition to the difficulties in selecting instrumental variables, some studies do not provide any justification for the selection of their instrumental variables, for example, Agrawal and Knoeber (1996), Bhagat and Black (2002), Cho (1998), and Lafer (2006). Yet, a simple justification of the instrumental variables has been provided in this study. Furthermore, the technical approach is provided to the Two Stage Least Square regressions which helps to elucidate and better realise the endogeneity and regression case. Finally, the outcomes of the 2SLS regression discussed above showed that no indication of a causal link was found going from company performance to the board of directors or other corporate governance variables. However, if there is any causal link between the corporate governance mechanisms, it is from a governance structure to firm performance.

The overall conclusion of the study is presented in the next chapter.

Chapter Seven: Summary and Conclusion

7.0 Introduction

Corporate scandals such as Enron, WorldCom and Tyco have drawn considerable attention to corporate governance worldwide (Du Plessis et al., 2011). The core function of corporate governance is to direct and control corporations and ensure that company objectives are set to maximise shareholder value (OECD, 2004). Studies on corporate governance are dominated by the principal-agency perspective, as it is one of the main problems within a dispersed ownership structure, leading to conflicts between shareholder interests and those of managers. In recent years, an increasing number of studies have shifted attention to a different agency problem, namely the principal-principal problem, which appears to be a greater concern in family firms, where most company shares are in the hands of family members, leading to conflicts of interest between family shareholders and non-family shareholders (minority shareholders). The literature and empirical work on the relationship between corporate governance mechanisms and corporate performance have debated various governance mechanisms used by firms to reduce the conflict of interest between shareholders and managers and/or majority and minority shareholders. Generally, the main objective of this thesis is to examine the association between board of directors and ownership structure to performance of family and non-family firms. Choosing family firms is compatible with the importance of these companies, which represent a large proportion of the corporate sector in most countries of the world, particularly developing countries.

This chapter presents and summarises the main results and findings in five sections: section 7.1 presents the main findings on board of directors and ownership structure. Section 7.2 presents the research implications based on our research results. Section 7.3 presents the research limitations. Section 7.4 provides the recommendations of the study, and section 7.5 presents the elements that need further research.

7.1 Summary of the Main Findings

The survey paper by Claessens and Fan (2002) and the review paper by Young et al. (2008) indicated that principal-principal conflicts in emerging countries are the prevailing conflicts because of extensive family ownership and control and weak legal protection of minority shareholders. However, according to Gillian (2006), the practice of good corporate governance is an essential tool for controlling agency problems arising from dispersed ownership as well as concentrated ownership through protecting investor's rights and interests. As a result, better corporate performance can be achieved through good governance (Shleifer and Vishny, 1997). Thus, based on the sample of 103 publicly-listed firms in Jordan, this study is an attempt to explore the concerns as highlighted by Claessens and Fan (2002) and Young et al. (2008). The study examined the influence of corporate governance mechanisms on the performance of family and non-family firms. Both board of directors' characteristics and ownership structure were tested by using the Ordinary Least Square (OLS) and Two Stages Least Square (2SLS) regression analyses. Several observable results are obtained from the study from the OLS analysis²². To assist in the discussion, the results were grouped into the following two sections; the results surrounding the characteristics of the board of directors and the results surrounding the ownership structure variables.

7.1.1 Board of Director Characteristics and Performance

With respect to board size our analysis revealed that the size of board has a negative and significant impact on the performance of family firms (as measured by ROA and Tobin's Q). The findings consistent with previous studies such as Yermack (1996), Anderson & Reeb (2004) and Haslindar & Fazilah (2011) argued that a large board is a less effective governance mechanism, and thus has a negative effect on family firm performance. Boards in Jordanian family firms are usually dominated by family shareholders, so the appointment procedures are based on nepotism and friendship rather than the relevant qualifications and experience, thus making the board less effective to influence the firm's performance. In addition, the market perceives that board members in family firms suffer from a lack of relevant business skills, as well as pursuing their benefits

²² The OLS and 2SLS regression analyses were conducted in this thesis to examine the relationship between corporate governance mechanisms and the performance of family and non-family firms. However, the outcomes of the 2SLS analysis reinforced the results of OLS analysis and indicated that there were no endogeneity problems with our model.

through the expropriation of non-family shares. Conversely, the results show insignificant relationship between the size of the board and corporate performance when using ROA or Tobin's Q. This is consistent with previous studies such as Barnhart & Rosenstein (1998), Millet-Reyes and Zhao (2010), Al-Matari et al. (2012), and Al-Ghamdi and Rhodes (2015). Also, Assenga, Aly & Hussainey (2018) studied and tested listed firms in Tanzania and found no correlation between board size and corporate performance.

The finding was found to be inconsistent with the view that CEO duality may provide greater opportunities for managerial entrenchment and expropriation of minority shareholders in family firms. Instead, our findings support the view that CEO duality would be able to progress the process of decision-making, is likely to overcome organisational inertia, and give top managers greater freedom to work on their vision. From the resource dependency perspective, CEO duality may be a useful mechanism because family firms benefit from business or political networks established by a CEO founder. The finding is consistent with Braun and Sharma (2007), who examined a sample of 84 family firms in the US context and found that CEO duality in family firms positively affects firm performance. Furthermore, in Jordan, as in many Middle Eastern countries, senior management and the board of directors in family firms are generally controlled by the family members. In addition, family businesses are often run in an uncomplicated business environment. Therefore, CEO duality could be helpful in terms of reducing bureaucracy within the company structure, improving communications between directors and speeding up the decision-making process. Regarding non-family firms, the results showed a significant and negative relationship between CEO duality and performance. This is consistent with previous studies such as Falah (2017), who carried out the study on Palestinian companies. The study found that CEO duality has a negative and significant impact on financial performance.

In addition, with respect to family CEO, the finding showed that family CEO has a negative and significant impact on performance. It might not be useful for Jordanian family firms because investors realise that family members hold the CEO position as a result of the excessive control the family has over the company and therefore react negatively to the situation. The result is consistent with other studies such as Barth et al. (2005) and Pandey et al. (2011).

Our analysis for independent directors showed a negative and significant impact on the performance of family firms. This finding is inconsistent with the OECD principles (2004) and the Jordanian Corporate Governance Code (2006), which recommends the presence of more independent directors on the board. Also, our result is in contrast to the agency and resources dependency perspectives. Agency and resources dependency theories argue that independent directors can provide independent decisions and judgments, as well as experience, control services, reputation and introduce specialised knowledge as important resources for the firm. The possible explanation for this finding may be that appointees may not have the relevant skills and experience as they are appointed because of a prior relationship with family shareholders. However, this finding is similar to other previous studies such as Amran and Ahmad (2009), who found that family firms with a high number of independent directors had lower performance. Conversely, the finding in non-family firms showed a highly positive and significant relationship between independent directors and corporate performance when using ROA or Tobin's Q. This finding is similar to some past studies such as Gordini (2012), Muravyev et al., (2014) and Kudrats and McDowell (2015).

Performance and female board members in family firms had an insignificant relationship with ROA and Tobin's Q, which is contrary to most previous studies that examined the effect of female board member on corporate performance and found a positive relationship, for example, Menozzi et al., (2011), Amore et al., (2014) and Assenga, Aly & Hussainey (2018). The possible explanation for this result may be that in Jordan, female board members usually do not have a business background and were likely to follow male members on the board. Moreover, the presence of female members of Jordanian family boards is relatively low (less than two) compared with male directors. However, this finding is consistent with some studies that failed to find any significant relationship between female members and corporate performance (see, e.g., Carter et al., 2010; Chapple and Humphrey, 2014; Farrell and Hersch, 2005; Rose, 2004; Randoy et al., 2006; Zahra & Stanton, 1998). However, performance and female board members in non-family firms had a negative and significant relationship when using ROA and Tobin's Q. This is consistent with prior studies such as Adams and Ferreira (2009), Bohren and Strom (2010) and Shehata et al. (2017). Therefore, these findings suggest that women's inclusion in boards of directors should be carefully

observed and should be based on qualifications and expertise to avoid a negative impact of the financial performance.

7.1.2 Ownership Structure and Performance

The findings related to ownership structure showed that ownership concentration has an insignificant relationship with performance in family firms when measured by ROA. Our finding is consistent with the evidence of Demsetz & Villalonga (2001), Thomsen et al. (2006), Shan and McIver (2011) and Al-Ghamdi & Rhodes (2015), who failed to find any significant relationship between concentrated ownership and corporate performance. Also, in non-family firms, our findings showed a negative relationship but do not appear to have a significant impact on the performance (measured by Tobin's Q or ROA). This result is consistent with the findings of other studies such as Prowse (1992), Omrana et al. (2008) and Shan and McIver (2011), all of which failed to find any significant relationship between concentrated ownership and corporate performance. On the other hand, ownership concentration has a negative and significant relationship when Tobin's Q is used; this shows that when the level of ownership concentration increases, the value of a Jordanian family firm decreases. The negative effect of concentrated ownership in family firm performance might be attributed to succession in the family business. Due to a family's vision for survival, family firms are more likely to enhance long-term performance without considering the interests of other shareholders, since focus on long-term performance meets the ultimate goal of the family, to deliver the company over to the next generations. This finding is consistent with a study of Davies et al. (2005), who argued that higher ownership concentration could adversely affect firm value.

The result provides a negative and significant relationship between local institutional ownership and performance measured by Tobin's Q, in family firms. As a principal-principal problem that is more prevalent in family firms, this result is consistent with the evidence of Fernando et al. (2014), who argue that local institutional investors are better able to recognise this problem in family businesses. This implies that family firms are less attractive to institutional investors, who are an increasingly important source of capital. Conversely, local institutional ownership in non-family firms has a positive and significant relationship with Tobin's Q. This is consistent with McConnel and Servaes (1990) reporting a positive effect of institutional investors on firm value measured by

Tobin's Q. However, performance and local institutional ownership had an insignificant relationship with ROA, in both family and non-family firms.

Finally, the findings revealed that foreign ownership in family and non-family firms indeed has a positive and significant impact on corporate performance measured by ROA and Tobin's Q. This is consistent with the findings of previous empirical studies. For example, Oxelheim and Randoy (2003); Hanousek et al. (2004); Sulong and Nor (2010); Taufil et al. (2013); Mishra (2014) and Phung and Mishra (2016) found that firm performance is positively associated with foreign ownership. They report that foreign investors are better monitored and have access to financial resources and professional talent. The possible explanation for this result might be that in Jordan, there are some distinctive features that attract international investors to buy shares of companies listed on the Amman Stock Exchange (ASE) including, a secure trading environment supported by the stability of the country, a solid financial structure, advanced monetary and fiscal policies, foreign and domestic investment law favourable to foreign investors (Marashdeh, 2014, p.73). Moreover, in 2003, the Jordanian government approved a new investment law to provide equal treatment to non-Jordanian investors with local investors, which distinguishes Jordan from other Middle Eastern countries. For instance, most investment laws in the Middle East give priority to local investors in several ways (e.g. ownership and labour force percentage).

7.2 Research Implications

The empirical results of this thesis on corporate governance and corporate performance offer evidence that the influence of corporate governance practices on corporate performance varies between firms and between countries. On this point, the theoretical interpretation of corporate governance in certain firms with concentrated ownership structures may not necessarily apply in other firms classified as having dispersed ownership. Due to a preponderance of family firms in the Jordanian business sectors, the results of this research show that the widespread adoption of an agency type I perspective, between shareholders and managers, is insufficient to explain every firm and national context. To address this, the research relied on two types of agency problem, allowing a fuller investigation of the association between corporate governance and performance in the Jordanian corporate context.

Furthermore, this study employed multiple theoretical frameworks, including the resource dependence theory, to develop a more comprehensive understanding of corporate governance practices. The board of directors in firms plays a vital role in securing financial resources. This is particularly important within the Jordanian context due to the existence of high ownership concentration in the listed companies at ASE. Such ownership concentration could adversely affect firm performance. For example, family shareholders have the power to appoint friends and relatives to director positions without due regard to their ability to provide the necessary financial and non-financial resources that are crucial for the firm's growth. Consequently, the investigation of corporate governance in a family business should be based on multiple theoretical frameworks, as there are many mechanisms that influence performance in this context.

This study has been able to explore and update the existing literature and in so doing establishes new ground for future research on family businesses and developing countries. It contributes to the debate on corporate performance by providing interesting results for researchers in the field of family firms concerning board structure and ownership structure. Furthermore, this study focuses on an important country in the Middle East, an under researched region, and thus the analysis and discussion of findings can offer new opportunities for further research.

The findings of this research advance the academic arguments on corporate governance, corporate performance, ownership structure, agency theory and resources dependency theory. Therefore, this thesis may give research students a guide for further studies in developing countries. Moreover, the study of family businesses can provide valuable information on the performance of both family and non-family firms from a governance perspective, thus enhancing the ability of investors to make sound investment decisions. Finally, this study utilises Jordanian companies' data; hence, the findings and inputs could be useful for Jordanian regulators to improve corporate governance.

The main findings presented in this study have important implication for the Jordanian economy. On the one hand, well-governed firms contribute more to economic growth, as those firms are stable, supportable and capable of reinforcing investor confidence in the capital market. OECD (2004) points out that corporations play an essential role in a country's economy, therefore sound corporate governance is a substantial part of economic growth. Moreover, corporate governance is one key component in improving economic efficiency and growth as well as enhancing investors' confidence (OECD 2004). Namely, the presence of an effective corporate governance

system, within an individual company and across an economy helps to provide a degree of confidence that is necessary for the proper functioning of a market economy. As a result, the cost of capital is lower, and firms are encouraged to use resources more efficiently, thereby underpinning economic growth (OECD 2004). In addition, corporate governance is an important channel not only in achieving economic growth but also in distributing the beneficial effects of growth throughout society. For example, well-governed companies provide regular profit to their shareholders and regular earnings to their employees (Škare and Hasić, 2016).

On the other hand, as regards family firms, the literature shows that this type of firm, due to their own peculiarities, can play a vital role in enhancing a country economic growth. According to Sanguino (2017) stated that family businesses play an important role in economic development across the globe, whether in developed or developing nations. Indeed, family business account for a high percentage of the gross domestic product and the private sector workforce all over the world. Past research has shown that family firms play a significant role in boosting GDP growth and employment in both emerging and developed economies (Tirdasari & Dhewanto, 2012). They are likely to contribute significantly to the development of the economy and society as whole in the long-term because of their extended investment horizons and their close links with local communities.

Additionally, the empirical evidence provided in this document highlights the importance of family participation in company operations and management in order to reduce the financial constraints that arise in the investment decision-making process and to improve financial performance. In this sense, by fostering and reinforcing the family business culture among managers, employees, and the rest of internal stakeholders, family owners can facilitate the establishment of relationships based on trust inside the corporation, which can constitute a source of competitive advantage. Besides, family owners should also take into consideration that their relationships with other major shareholders can significantly affect performance, which will in turn be reflected in the market value of the firm.

The following sub-section discusses the policy implications of the findings in this study.

7.2.1 Implications for policy-makers in Jordan

From the results of this study, some implications can be drawn for policy-makers of Jordanian firms. Firstly, the results reflect that corporate governance matters in emerging economies such as Jordan may require solutions that differ from those created by the traditional agency theory perspective that ignores institutional differences. The adoption of a policy designed for developed countries may not necessarily be effective and may lead to adverse consequences for developing countries. For example, implementing the separation of the role of CEO and chairman to enhance corporate performance as recommended by the OECD Principles of Corporate Governance (2004) may not work in the case of family firms. The findings in this study indicate that CEO duality would be able to progress the process of decision-making, and is likely to overcome organizational inertia, and give top-managers greater freedom to work on their vision.

At the same time, the results point out that when family firms have a higher proportion of independent directors in the board of directors, it is, in fact, detrimental to corporate performance. This is because the increase in the number of independent directors in the company's board may only be paying lip service to regulatory requirements and not have any substance. Another possible explanation for the potential negative result is that the appointees may not have the relevant skills and experience as they are appointed because of a prior relationship with family shareholders, and therefore feel obliged to work for them, which causes the company's performance to be negatively affected. It is therefore suggested that regulators should develop policies that are capable of encouraging families to set criteria for the appointment of powerful independent directors who have greater prospects of achieving better financial performance.

Secondly, the findings of this study showed that the local institutional investors are ineffective in enhancing family firm performance. This is attributed to the notion that local institutional investors in Jordan might be better able to recognise the conflicts in family businesses, so they may not be able to access a new source of capital, especially when they need to expand their investments. Therefore, controlling families must realise that limiting expropriation activities and improving corporate governance is valuable as this will attract more domestic investment into its shares. The subsequent increase in their wealth because of the improved valuation of their shares will be offset more than the special gains from the acquisition activities.

Thirdly, with regards to foreign investors, the previous studies in developed and developing countries found that firm performance is positively associated with foreign ownership. They report that foreign investors are better monitored and have access to financial resources and professional talent. Therefore, the policy-makers must formulate more strategies to attract more foreign investors to listed companies in Jordan. These are some strategies that can be considered by policy-makers; (i) improving the tax dealing with foreign investors in relation to income from shares and capital gains. It is a direct way to attract more foreign investors to the Amman Stock Market. (ii) additional liberalisation of capital markets such as mitigation of quota requirements for Arab investors in Jordanian listed firms should also be considered, (iii) Given the nature of the concentrated ownership structure, increasing the free float²³ level is an important step to boost the vitality of the Amman Stock Market and thus attract more foreign investors, (iv) policies should be directed to encourage family businesses (with majority ownership) in Jordan to dispose of some of their shares to free up more shares for foreign investors.

Finally, due to the importance of corporate governance mechanisms in improving the performance of firms, such as board of directors, the Amman Stock Market and the Jordan Securities Commissions could further increase their attention to the level of compliance among listed companies. The Jordan Securities Commissions could also establish a special code for family firms to enhance the level of performance and make recommendations accordingly.

7.3 Research Limitations

Like all research, this research is subject to limitations that it is important to recognise. First, this study examines only non-financial firms listed on the Amman Stock Exchange. The exclusion of financial firms in this study was due to the differences between financial and non-financial firms in terms of corporate governance instructions and rules. This limitation reduces the size of the sample from 228 to 103. In addition, the study focuses only on listed firms. Unlisted firms have been excluded because of the lack of availability of both financial and non-financial data for such firms. Thus, the results of this research cannot be generalised to unlisted firms and financial firms.

²³ Free float refers to the percentage of shares held by minority shareholders who are likely to be willing to trade. A low level of free float tends to create liquidity problems that may prevent foreign investors from investing in the market.

In addition, it is difficult to generalise to other countries which are dissimilar to Jordan, which has its own culture and regulations.

Second, for limitations regarding quantitative methodology, it is worth mentioning that the research is based on secondary data. If secondary data were to be collected together with primary data, this may give a better idea of corporate governance practices in Jordanian firms. Additionally, only eight corporate governance variables were examined in this research and other corporate governance variables such as audit committee and board meeting may have an impact on corporate performance. Although not part of this study, these variables are widely used in corporate governance studies. Moreover, with respect to family firms, other governance variables not incorporated into this study may have an influence on firm performance, such as the involvement of the next generation of family members.

7.4 Suggestions for Future Further Research

There are some potential issues that could be considered for further studies:

- First, further studies should be expanded to include other Arab and Middle Eastern countries with similar characteristics to Jordan. This would offer further evidence of corporate governance practices across countries and help determine whether the principles of agency theory relate to the corporate governance practices of all Arab countries or whether they are specific to the business context of Jordan.
- Second, a comparison can be made between listed and unlisted firms in Jordan to provide further evidence of corporate performance throughout the economy. Examining corporate governance practices in unlisted firms may be particularly fertile in the Jordanian context, given that little attention is drawn to these firms despite their significance to the Jordanian economy. Researchers could usefully make a comparison between listed and unlisted firms to determine whether corporate governance practices are similar.
- Third, this work can be extended to compare family businesses with countries such as Saudi Arabia and Taiwan. These two countries are relevant as they have a large number of family

businesses contributing to their economy. In addition, Saudi Arabia and Taiwan enjoy similar laws to Jordan regarding the names of women after marriage.

- Fourth, it would be interesting to investigate the impact of family ownership and involvement in the firm more directly through studies based on case studies, interviews, and questionnaire surveys. This can deepen our understanding of corporate governance practices in Jordanian firms on issues such as the selection process of board members, the actual roles of the board, board responsibilities and board evaluations.
- Finally, the sampling and methodology of this study could be extended. This study used data for the period 2009 to 2015, while future research could include later periods. Furthermore, future research could incorporate more factor variables, for example, the impact of the level of education, the experience and the age of board members upon profitability variables.

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Appendices

<i>Services Sector</i>				
No.	Company's Name	Symbol	Code	Industry
1.	AL-BILAD MEDICAL SERVICES	ABMS	131002	Health Care
2.	THE CONSULTANT & INVESTMENT GROUP	CICO	131207	Health Care
3.	IBN ALHAYTHAM HOSPITAL COMPANY	IBNH	131279	Health Care
4.	INTERNATIONAL FOR MEDICAL INVESTMENT	ICMI	141021	Health Care
5.	AL-ZARQA EDUCATIONAL & INVESTMENT	ZEIC	131051	Educational
6.	THE ARAB INTERNATIONAL FOR EDUCATION & INVESTMENT	AIEI	131052	Educational
7.	ITTIHAD SCHOOLS (ITSC)	ITSC	131093	Educational
8.	AL-ISRA FOR EDUCATION AND INVESTMENT "PLC"	AIFE	131220	Educational
9.	PETRA EDUCATION COMPANY	PEDC	131221	Educational
10.	PHILADELPHIA INTERNATIONAL EDUCATIONAL INVESTMENT	PIEC	131222	Educational
11.	JORDAN HOTELS & TOURISM	JOHT	131003	Hotels & Tourism
12.	ARAB INTERNATIONAL HOTELS	AIHO	131005	Hotels & Tourism
13.	MEDITERRANEAN TOURISM INVESTMENT	MDTR	131035	Hotels & Tourism
14.	ZARA INVESTEMENT HOLDING	ZARA	131067	Hotels & Tourism
15.	AL- SHARQ INVESTMENTS PROJECTS	AIPC	131078	Hotels & Tourism
16.	AL-DAWLIYAH FOR HOTELS & MALLS	MALL	131098	Hotels & Tourism
17.	JORDAN PROJECTS FOR TOURISM DEVELOPMENT	JPTD	131211	Hotels & Tourism
18.	WINTER VALLEY TOURISM INVESTMENT CO.	WIVA	131235	Hotels & Tourism
19.	AL-RAKAEZ INVESTMENT CO.	RICS	131261	Hotels & Tourism
20.	SURA DEVELOPMENT & INVESTMENT	SURA	131283	Hotels & Tourism
21.	JORDAN NATIONAL SHIPPING LINES	SHIP	131012	Transportation

22.	SALAM INTERNATIONAL TRANSPORT & TRADING	SITT	131034	Transportation
23.	TRUST INTERNATIONAL TRANSPORT	TRTR	131055	Transportation
24.	JORDAN EXPRESS TOURIST TRANSPORT	JETT	131080	Transportation
25.	JORDAN INVESTMENT & TOURISM TRANSPORT(ALFA)	ALFA	131083	Transportation
26.	TRANSPORT& INVESTMENT BARTER COMPANY	NAQL	131208	Transportation
27.	ALIA- THE ROYAL JORDANIAN AIRLINES PLC.	RJAL	131213	Transportation
28.	MASAFAT FOR SPECIALISED TRANSPORT	MSFT	131243	Transportation
29.	RUM GROUP FOR TRANSPORTATION & TOURISM INVESTMENT	RUMM	131262	Transportation
30.	UNITED GROUP FOR LAND TRANSPORT CO. P.L.C	UGLT	131288	Transportation
31.	UBOUR LOGISTIC SERVICES PLC	TRUK	131290	Transportation
32.	ARABIAN AVIATION INVESTMENT COMPANY	ARAV	141218	Transportation
33.	JORDAN TELECOM	JTEL	131206	Technology & Communication
34.	AL-FARIS NATIONAL COMPANY FOR INVESTMENT & EXPORT	CEBC	131232	Technology & Communication
35.	JORDAN PRESS FOUNDATION/AL-RA'I	PRES	131013	Media
36.	JORDAN ELECTRIC POWER	JOEP	131004	Utilities & Energy
37.	IRBID DISTRICT ELECTRICITY	IREL	131010	Utilities & Energy
38.	NATIONAL PETROULEUM	NAPT	141103	Utilities & Energy
39.	JORDAN PETROLEUM REFINERY	JOPT	142041	Utilities & Energy
40.	JORDANIAN DUTY FREE SHOPS	JDFS	131022	Commercial
41.	JORDAN INTERNATIONAL TRADING CENTER	JITC	131023	Commercial
42.	JORDAN TRADE FAC	JOTF	131062	Commercial
43.	SPECIALIZED TRADING & INVESTMENT	SPTI	131081	Commercial
44.	SPECIALIZED JORDANIAN INVESTMENT	SIJC	131086	Commercial

45.	BINDAR TRADING & INVESTMENT CO.	BIND	131219	Commercial
46.	OFFTECHOLDING GROUP PLC	OFTC	131228	Commercial
47.	SOUTH ELECTRONICS	SECO	131230	Commercial
48.	NOPAR FOR TRADING AND INVESTMENT	NOTI	131238	Commercial
49.	COMPREHENSIVE LEASING COMPANY	LEAS	131264	Commercial
50.	AFAQ FOR ENERGY CO.	MANE	131286	Commercial
51.	INJAZ FOR DEVELOPMENT & PROJECTS	ATCO	141058	Commercial

Industrial Sector

52.	DAR AL DAWA DEVELOPMENT & INVESTMENT	DADI	141012	Pharmaceutical & Medical
53.	ARAB CENTER FOR PHARM.& CHEMICALS	APHC	141023	Pharmaceutical & Medical
54.	MIDDLE EAST PHARMA. & MEDICAL APPLIANCES	MPHA	141073	Pharmaceutical & Medical
55.	THE JORDANIAN PHARMACEUTICAL MANUFACTURING	JPHM	141204	Pharmaceutical & Medical
56.	HAYAT PHARMACEUTICAL INDUSTRIES CO.	HPIC	141210	Pharmaceutical & Medical
57.	PHILADELPHIA PHARMACEEUTICALS	PHIL	141219	Pharmaceutical & Medical
58.	THE INDUSTRIAL COMMERCIAL & AGRICULTURAL	ICAG	141009	Chemical
59.	PREMIER BUSINESS AND PROJECTS CO.	ACDT	141010	Chemical
60.	JORDAN CHEMICAL INDUSTRIES	JOIC	141026	Chemical
61.	NATIONAL CHLORINE INDUSTRIES	NATC	141054	Chemical
62.	JORDAN INDUSTRIAL RESOURCES	JOIR	141055	Chemical
63.	COMPREHENSIVE MULTIPLE PROJECT COMPANY	INOH	141086	Chemical
64.	THE ARAB PESTICIDES & VETERINARY DRUGS MFG. CO.	MBED	141209	Chemical
65.	INTERMEDIATE PETROCHEMICALS INDUSTRIES CO.	IPCH	141217	Chemical

66.	SANITARY PAPER CONVERTING	PERL	141081	Paper & Cardboard
67.	AL-EKBAL PRINTING AND PACKAGING	EKPC	141100	Printing & Packaging
68.	JORDAN POULTRY PROCESSING & MARKETING	JPPC	141002	Food & Beverages
69.	JORDAN DAIRY	JODA	141004	Food & Beverages
70.	GENERAL INVESTMENT	GENI	141029	Food & Beverages
71.	UNIVERSAL MODERN INDUSTRIES	UMIC	141052	Food & Beverages
72.	NATIONAL POULTRY	NATP	141084	Food & Beverages
73.	THE ARAB INTERNATIONAL FOOD FACTORIES	AIFF	141092	Food & Beverages
74.	NUTRI DAR	NDAR	141094	Food & Beverages
75.	JORDAN VEGETABLE OIL INDUSTRIES	JVOI	141141	Food & Beverages
76.	UNION TOBACCO & CIGARETTE INDUSTRIES	UTOB	141074	Tobacco & Cigarettes
77.	GENERAL MINING CPMPANY PLC	GENM	141005	Mining & Extraction
78.	ARAB ALUMINIUM INDUSTRY /ARAL	AALU	141006	Mining & Extraction
79.	NATIONAL STEEL INDUSTRY	NAST	141011	Mining & Extraction
80.	JORDAN PHOSPHATE MINES	JOPH	141018	Mining & Extraction
81.	THE JORDAN CEMENT FACTORIES	JOCM	141042	Mining & Extraction
82.	JORDAN STEEL	JOST	141070	Mining & Extraction
83.	NATIONAL ALUMINIUM INDUSTRIAL	NATA	141091	Mining & Extraction
84.	INTERNATIONAL SILICA INDUSTRIAL	SLCA	141170	Mining & Extraction
85.	TRAVERTINE COMPANY	TRAV	141203	Mining & Extraction
86.	NATIONAL OIL AND ELECTRICITY PRODUCTION FROM OIL SHALE COMPANY	JOSE	141216	Mining & Extraction
87.	UNITED IRON & STEEL MANUFACTURING CO.	MANS	141220	Mining & Extraction
88.	JORDAN MARBLE COMPANY.	JMCO	141221	Mining & Extraction

89.	THE JORDAN PIPES MANUFACTURING	JOPI	141019	Engineering & Construction
90.	JORDAN WOOD INDUSTRIES / JWICO	WOOD	141038	Engineering & Construction
91.	READY MIX CONCRTE AND CONSTRUCTION SUPPLIES	RMCC	141065	Engineering & Construction
92.	ARABIAN STEEL PIPES MANUFACTURING	ASPM	141098	Engineering & Construction
93.	AL-QUDS READY MIX	AQRM	141208	Engineering & Construction
94.	ASSAS FOR CONCRETE PRODUCTS CO.	ASAS	141214	Engineering & Construction
95.	NATIONAL CABLE & WIRE MANUFACTURING	WIRE	141039	Electrical
96.	MIDDLE EAST SPECIALIZED CABLES COMPANY	JNCC	141059	Electrical
97.	ARAB ELECTRICAL INDUSTRIES	AEIN	141072	Electrical
98.	UNITED CABLE INDUSTRIES	UCIC	141215	Electrical
99.	THE JORDAN WORSTED MILLS	JOWM	141014	Textiles & Clothing's
100.	AKARY FOR INDUSTRIES AND REAL ESTATE INVESTMENTS	WOOL	141031	Textiles & Clothing's
101.	EL-ZAY READY WEAR MANUFACTURING	ELZA	141061	Textiles & Clothing's
102.	ARAB WEAVERS UNION COMPANY	ARWU	141212	Textiles & Clothing's
103.	JORDAN CLOTHING COMPANY	CJCC	141213	Textiles & Clothing's

	<p>بسم الله الرحمن الرحيم هـيئة الأوراق المالية</p>	
<p>Ref: 1211/2378 Date: 31/10/2016</p>		
<p>To Whom It May Concern</p>		
<p>We certify that the data which have been given to the student Zaid Mhmoud Ahmad Saidat upon his request regarding the Industrial And Services Public Listed Jordanian Companies for the period 2005-2015 are official, and Jordanian Securities Commission shall bear no responsibility for the usage of the data.</p>		
<p>Best regards,</p>		
<p> Executive Manager Jordan Securities Commission</p>		
<p>مستوفى بريد: عمان 11111 الأردن - هاتف: ٩٦٤ ٦ ٩٦٤ - فاكس: ٩٦٤ ٦ ٩٦٤ - الموقع الإلكتروني: WWW.JSC.GOV.JO - البريد الإلكتروني: info@jsc.gov.jo</p>		

Appendix (3): A list of family firms with ownership percentage and family member in the board.

Services Sector			
No.	Company code	Percentage of shares owned by the Family	Family member in the board
1	131279	58%	✓
2	141021	45,09%	✓
3	131051	41,973%	—
4	131052	18,13%	✓
5	131093	66%	✓
6	131220	15%	✓
7	131221	27%	✓
8	131222	18,584%	✓
9	131005	37,383%	✓
10	131035	27,40%	✓
11	131078	65%	✓
12	131098	29,437%	✓
13	131211	22,99%	✓
14	131272	10,84%	✓
15	131034	33%	✓
16	131083	68,106%	—
17	131243	39,085%	✓
18	131262	10,94%	✓
19	131288	100%	✓
20	141218	41,1%	✓
21	131062	33,80%	✓
22	131081	31,30%	✓
23	131228	53,70%	✓
24	131238	50%	✓
25	131264	35,143%	✓
26	131286	93,05%	✓

Industries Sector			
No.	Company code	Percentage of shares owned by the Family	Family member in the board
27	141023	46.7%	✓
28	141073	68.365%	✓
29	141210	37%	✓
30	141219	42.020%	✓
31	141010	24.45%	✓
32	141026	20.70%	✓
33	141086	65.97%	✓
34	141017	34.2%	✓
35	141002	95.57%	✓
36	141004	76.39%	✓
37	141029	36%	✓
38	141044	47.36%	✓
39	141092	73.67%	✓
40	141141	45.1%	✓
41	141074	89.104%	✓
42	141005	23.659%	✓
43	141006	16.33%	✓
44	141011	65.47%	✓
45	141091	52.56%	✓
46	141117	86.7%	✓
47	141203	18.215%	✓
48	141216	17.359%	✓
49	141220	79.82%	✓
50	141221	99%	✓
51	141019	10.07%	—
52	141215	10.08%	✓
53	141072	22.15%	—
54	141014	20.86%	✓
55	141031	40.504%	✓
56	141212	90.09%	✓

Appendix (4): Descriptive statistics of all variables for full- sample, family and non-family firms.

Full-Sample					
Variable	N	Mean	Min	Max	Std. Dev.
BOSIZE	721	8.145631	5	13	2.201549
CEODUA	721	.1816921	0	1	.3858582
INDTDIR	721	.9145631	.6	1	.0849599
FEMABO	721	.2829404	0	2	.560605
OWNCON	721	.6381707	.168172	.988425	.217983
OWNLOC	721	.3884916	0	.952708	.292028
OWNFOR	721	.1673359	0	.904842	.2209227
FSIZE	721	7.357027	6.21101	8.81824	.5789839
FAGE	721	20.62074	3	58.475	14.83788
LVEGE	721	.3272948	.017231	.906591	.2236093
ROA	721	.0029275	-.173203	.13655	.0529844
Tobin's Q	717	.0171839	-.012877	.058645	.0331074
Non- Family Firms					
BOSIZE	329	8.379939	5	13	1.973535
CEODUA	329	.1215805	0	1	.3272985
INDTDIR	329	.9118541	.6	1	.0940901
FEMABO	329	.2401216	0	2	.5239112
OWNCON	329	.6187608	.168172	.988425	.2293949
OWNLOC	329	.5216537	0	.952708	.2734355
OWNFOR	329	.2330827	0	.904842	.2650498
FSIZE	329	7.514764	6.21101	8.81824	.6322594
FAGE	329	22.16307	3	58.475	15.85108
LVEGE	329	.3679216	.017231	.906591	.2362465
ROA	329	.0058299	-.173203	.13655	.0780353
Tobin's Q	325	.0532373	-.002201	.058645	.0061121
Family Firms					
BOSIZE	392	7.94898	5	13	2.360686
CEODUA	392	.2321429	0	1	.4227392
INDTDIR	392	.9168367	.6	1	.0765108
FEMABO	392	.3188776	0	2	.5879008
CEOFAM	392	.9285714	0	1	.2578685
OWNCON	392	.6544612	.168172	.988425	.2068144
OWNLOC	392	.2767306	0	.952708	.258602
OWNFOR	392	.1121555	0	.904842	.1557321
FSIZE	392	7.224641	6.21101	8.48071	.4933972
FAGE	392	19.32628	3	58.475	13.81883
LVEGE	392	.2931973	.017231	.906591	.2066389
ROA	392	.0004915	-.004491	.13655	.0069402
Tobin's Q	392	-.0127072	-.012877	-.012265	.0001457

Appendix (5): VIF test Results (ROA)

	VIF	1/VIF
BOSIZE	1.31	0.761740
CEODUA	1.22	0.817008
INDTDIR	1.23	0.812995
FEMABO	1.25	0.798868
CEOFAM	1.52	0.658090
OWNCON	1.55	0.646444
OWNLOC	1.87	0.534685
OWNFOR	1.28	0.780917
FSIZE	1.57	0.637389
FAGE	1.26	0.792539
LVEGE	1.36	0.736454
Mean VIF	1.72	

Appendix (5a): VIF test Results (Tobin's Q)

	VIF	1/VIF
BOSIZE	1.31	0.761740
CEODUA	1.22	0.817008
INDTDIR	1.23	0.812995
FEMABO	1.25	0.798868
CEOFAM	1.52	0.658090
OWNCON	1.55	0.646444
OWNLOC	1.87	0.534685
OWNFOR	1.28	0.780917
FSIZE	1.57	0.637389
FAGE	1.26	0.792539
LVEGE	1.36	0.736454
Mean VIF	1.72	

Appendix (6): Family firms with family member in CEO position

<i>No.</i>	<i>Company code</i>	<i>CEO-Family</i>	<i>No.</i>	<i>Company code</i>	<i>CEO-Family</i>
1	131279	✓	29	141210	✓
2	141021		30	141219	✓
3	131051	✓	31	141010	✓
4	131052	✓	32	141026	✓
5	131093	✓	33	141086	✓
6	131220		34	141017	✓
7	131221		35	141002	
8	131222	✓	36	141004	✓
9	131005	✓	37	141029	
10	131035	✓	38	141044	✓
11	131078		39	141092	
12	131098		40	141141	✓
13	131211	✓	41	141074	✓
14	131272	✓	42	141005	✓
15	131034		43	141006	
16	131083	✓	44	141011	✓
17	131243	✓	45	141091	✓
18	131262	✓	46	141117	
19	131288	✓	47	141203	✓
20	141218	✓	48	141216	✓
21	131062	✓	49	141220	✓
22	131081		50	141221	✓
23	131228		51	141019	
24	131238	✓	52	141215	✓
25	131264	✓	53	141072	
26	131286	✓	54	141014	✓
27	141023	✓	55	141031	✓
28	141073	✓	56	141212	✓

Appendix (7): Summary of dummy variable (Industry sector)

Code	Industry	Family Firms		Non-Family Firms	
		ROA	Tobin's Q	ROA	Tobin's Q
1	Health Care	0.799	0.143	0.831	0.198
2	Educational	0.121	0.357	—	—
3	Hotels & Tourism	0.619	0.730	0.748	0.693
4	Transportation	0.352	0.091*	0.297	0.001***
5	Technology & Communication	—	—	0.410	0.000***
6	Media	—	—	0.239	0.033**
7	Utilities & Energy	—	—	0.006***	0.048**
8	Commercial	0.054	0.811	0.416	0.853
9	Pharmaceutical & Medical	0.000***	0.759	0.182	0.270
10	Chemical	0.014**	0.632	0.085*	0.539
11	Paper & Cardboard	—	—	0.262	0.000***
12	Printing & Packaging	—	—	0.000***	0.546
13	Food & Beverages	0.000*	0.934	0.443	0.381
14	Tobacco & Cigarettes	0.420	0.838	—	—
15	Mining & Extraction	0.812	0.040**	0.019	0.066*
16	Engineering & Construction	0.761	0.622	0.741	0.732
17	Electrical	0.501	0.003***	0.017**	0.050**
18	Textiles & Clothing's	0.572	0.028**	0.588	0.437

The Board of Directors of a Shareholding Company

- The administration of the Company is entrusted to a board of directors whose members shall be not less than five and not more than thirteen, as determined by the Company's memorandum of association. Principles of good corporate governance require that board members be elected by the company's general assembly in a secret ballot, by means of cumulative voting system, provided that at least one third of the board members are independent members. If the result in calculating the above - mentioned third is with a fraction, the fraction is removed by rounding the result to the following figure.
- The board of directors shall manage the company for a period of four years starting on the date of its election.
- A legal board member person shall name a natural person to represent him during the board's term of office.
- The board of directors represents all shareholders. It should exercise due professional care in managing the company, and devote the time needed to carry out its activities in honesty and transparency in order to serve the company's interests and realize its objectives.
- It is not allowed for one person to hold the positions of chairman of the board of directors and any executive position in the company at the same time.
- A member of the board of directors or his representative should not be a member of the board or a representative of a member of the board of directors of another company that has similar business, has identical objectives, or is a competitor thereof. In all cases, a natural person must not combine membership of the boards of more than five companies whether in his personal capacity or as a representative of a legal person.
- The company is not allowed to provide a cash loan of any kind to the chairman or any member of the board of directors or to any of their relatives. Excluded from this condition are banks and financial companies that may advance loans to any of the aforesaid persons within the limits of these companies' objectives and in accordance with the same conditions that apply to all customers, provided that this should be disclosed in the company's annual report.
- The company shall provide members of the board of directors with all information and data related to the company, to enable them to perform their duties and to be aware of all aspects related to the company's work.
- The board of directors shall ensure that members of the executive management have the administrative and technical qualifications and experience that they need to carry out their duties.
- The board may seek the opinion of any external consultant at the company's expense provided that the majority of board members approve the measure and that there is no conflict of interests.
- The chairman of the board of directors or any board member or the company's general manager or its auditor is required, under legal responsibility, to notify the supervisory authorities concerned in any of the following cases:
 - 1- If the company suffers financial or administrative disorders or if it suffers serious losses that affect the rights of its shareholders or creditors.

- 2- If the company's board of directors or any board member or the company's general manager exploits his/their powers and position/s in any manner that derives benefit to him/ them or to others in an illegal manner. This provision shall apply equally should any of the above refrain from carrying out this an activity that is required by law.
- 3- If the company's board of directors or any board member or the company's general manager perform any act that implies fraud, embezzlement, misrepresentation, forgery or betrayal of confidence in a manner that affects the rights of the Company, its shareholders or others.

Shareholders' Rights

- The company shall maintain shareholders ownerships records containing information including their names, number of shares they hold, any restrictions on ownerships, and any changes that occurred to such.
- Access to shareholder records related to any shareholder for any reason whatsoever, and to the complete record for reasonable cause.
- Access to information and documents of the company in accordance with the laws in force.
- Receiving periodic and non-periodic information that is disclosed in accordance with legislations in force.
- Participating and voting in general assembly meetings in person or by proxy with a number of votes equal to the number of shares that he holds in the company.
- Receiving annual dividends within thirty days from the date of the decision taken by the general assembly to distribute them.
- Priority to subscribe in any new share issuance by the company, before these shares are offered to other investors.
- Filing a lawsuit against the board of directors or any of its members claiming compensation for damages incurred as a result of a violation of the legislations in force or of the company's memorandum of association or any mistake or negligence in administering the company, or of disclosure of company secrets.
- Filing a lawsuit against the company's general manager or any of the company's employees claiming compensation for damages incurred as a result of disclosing the company's secrets.
- Requesting an extraordinary general assembly meeting by shareholders who hold 25% of the company's subscribed shares.
- Requesting an extraordinary general assembly meeting by shareholders holding 20% of the company shares to request the resignation of the chairman of the board of directors or any board member.
- Requesting the audit of the company's activities and records by shareholders holding 10% of the company shares.
- Filing a lawsuit to contest the legality of any general assembly meeting or to contest the decisions taken in that meeting within three months of the meeting.
- Access to the minutes of the company's general assembly meetings.
- Discussing the company's performance and its plans for the coming period
- Electing members of the board of directors and external auditor.
- Approving the financial statements of the company.
- Amending the articles of association and memorandum of association of the company, particularly provisions related to the change in its objectives.

- Issues related to merger, incorporation or liquidation of the company.
- Dismissing the board of directors, the chairman or any board member.
- Selling the company or acquiring another company.
- Raising or lowering the company's capital.
- Issuing corporate bonds convertible to shares.
- Enabling the employees to own the company's shares.
- Purchasing or selling the company's shares.
- Selling the company's assets in full or a significant portion of the assets that might affect the realization of the company's objectives.